

PART 5: Evolution, Morality, and God

Chapter 5.01 Moral Atheism

This chapter does two things. First, it lists the main points for this part of the book. Second, it presents the arguments of moral atheists and my counter-arguments. I do not argue that the capacities for religion and for morality evolved. I take it for granted that those capacities evolved, and then assess the implications. I focus on morality. I wrote more fully about the evolution of morality elsewhere; I will put that work on the Internet.

PART 1: Main Points for this Part of the Book

-Evidence from the history of the universe and the evolutionary record points to a God behind it all. This book gives a taste of the evidence. The evidence is suggestive only; it cannot be used to prove the existence of God.

-The cosmic and evolutionary record is full of chaos, violence, badness, and even some natural evil that is not caused by people. So, the same record that indicates a God also makes us wonder about his-her character.

-Atheists use the evolutionary record to argue against a planner God. They correctly point out that everything can be explained using natural laws, including morality. At the same time, they insist on following morality. I show why the evolutionary of morality is strong (but not conclusive) evidence for a planner God.

-Morality is not one thing. It is a bundle of distinct but still mutually dependent qualities, like the various components in the sense of taste. The components include good, greater good, should and should not, rules, right and wrong, and duties and rights. We cannot see how morality works without also seeing that it is both one and many at the same time.

-Morality very often, but not always, follows practicality.

-Even though morality often follows practicality, morality has its own logic apart from how it might have evolved and how it serves practicality. This logic holds together the components of morality. The logic is based on the idea of "applies equally to everybody including me and my kin". It is also expressed in the Golden Rule and in loving your neighbor as yourself. The logic of morality makes morality feel objective, not something we make but something outside of us that we apply to ourselves. Natural selection can put into us a feeling that a system is outside of us, and can put us in touch with a logical system that is outside of our subjectivity.

-Evolution gave us the capacity for morality. By the same process, evolution insured that we could not be perfectly moral. We can see moral ideals but we cannot live up to them. No harangue can make us perfectly moral. Jesus' message goes along with the inner logic of morality as that logic

developed through evolution. Jesus pushes us to be better even if he does not expect us to be perfect. Jesus completes the direction in which evolution began us.

-Morality and sentience evolved together in the context of group life. Whenever sentient beings evolve, they would also evolve morality, and it would be morality much like ours. Whenever moral beings evolve, they also have to be sentient. Morality, sentience, and group life always go together. This book focuses on morality.

-Because morality and sentience appear together in group life, people (not usually Darwinists) mistakenly think the group created morality or the group determines the content of morality. That idea in turn often leads to moral relativity. Evolution works through individuals. I see no evidence from evolution for moral relativity. We need to feel how morality and sentience evolved together in the context of group life so we can be clearer and avoid relativity.

I borrowed ideas from major Western thinkers on morality, including Plato, Aristotle, Thomas Aquinas, John Locke, David Hume, Immanuel Kant, G.E. Moore, and John Rawls. I do not credit their specific ideas. I do not give their works in the Bibliography. Their works are often collected and are readily available.

I boil down various scenarios about how morality evolved to the one scenario that morality helps moral people to succeed in group life.

I do not repeat in detail arguments about the evolution of religion and morality that you can find elsewhere. I do explain the arguments, and give you enough so you can read other books. What I say using Darwinism is my version, and should not be taken to represent science in general. I do not distinguish between having genes versus learning. I do not distinguish between trait, ability, capacity, behavior, sentiment, feeling, emotion, attitude, intent, intellect, idea, quality, etc. I do not distinguish between God, Dharma, Tao, or the Universe; "God" covers all.

PART 2: Skepticism and Moral Atheism

Atheists are more than neutral or uncertain about God; they are sure there is no God. I use the term "militant atheists" for people who are not only cautious about belief but also attack religion. "Moral atheists" say we can get rid of religion entirely but still keep morality. Usually they are not clear why we should be moral, whose morality they have in mind, and why that morality. Most atheists I have met are moral atheists. Some moral atheists are not militant but most tend toward militancy when engaged, as religious people do. I think nearly all militant atheists are also moral atheists. As far as I have seen, moral atheists are indeed moral. Atheists seem more moral and honorable than the average.

Some atheists use Darwinism as a tool to undermine religion. They say religion is only an evolved delusion, and a dangerous delusion. They do not say why morality is not an evolved delusion, another dangerous delusion. Among famous atheists, Richard Dawkins and Daniel Dennett represent Darwinian militant atheism while Christopher Hitchens and Bill Maher represent militant atheism that is not overtly Darwinian but is similar in spirit. I admire much about them but I cannot agree with their intense dislike of all religion. References to their work are in the Bibliography.

Militant moral atheists often see themselves as skeptics. From staunch skeptics, militant moral atheists borrowed arguments that undermine all belief. They apply the arguments to religion. Militant moral atheists lie between strong real skeptics and theists. To put both moral atheists and theists in perspective, we have to look first at skeptics.

People think of skepticism as the attitude of “show me”, as debunking what annoys us what is silly. I see that kind of mild skepticism as a useful hobby. Real skepticism is much stronger. A real skeptic believes and disbelieves almost nothing about anything. Real skeptics are scarily value neutral. In contrast, almost all of us believe much for which we have no evidence and no good arguments; even staunch atheists do so. We all take stances that are not based only on empirical evidence. For example, most of us believe in morality although we cannot sense morality and cannot prove it is valid. Every stance means we believe in more than the simple obvious material world; we believe in the supernatural (metaphysical or transcendental). Valuing morality means you believe in the supernatural. Moral atheism is such a stance too. So, moral atheists believe in the supernatural even if they do not believe in a god. Clear minded Buddhists understood this conclusion. This section only hits highlights of the issues. I put a longer version of the dilemma on the Internet.

“Everything means less than zero”. A strong skeptic does not privilege any action over any other action, any person over any other person, even him-herself, or any value over any other value – not without a strong reason. What is, is. People do what they do. There are no absolute values or judgments inherent in the world, in human action, or in one person rather than another. There are values. We impose them all the time. That is one of the things that people just do. But no value is ultimately any better than any other value. We have no ultimate warrant for imposing any values, not in morality or evolution. Giving your spouse a nice card and some flowers on Valentine’s day is no different than killing her and eating her. Feeding orphans is no better than eating them for dinner – for which example I thank Jonathan Swift and the Irish famine. To burn my fingers on the stove accidentally is the same as if I made and ate a tasty omelet. My pleasure, pain, morality, or power is no more important than those of the bum on the corner; and his-her are no more so than mine. A moral act is no better than an immoral act, and vice versa. For my neighbor to hit me on the head with a golf club is no better than if I were to hit him or if he were to give me tickets to a good concert. A tiger is no better than a tape worm. A human is no better than a tape worm. A strong skeptic does recognize that pain hurts and pleasure feels good but denies any intrinsic reason to think one better or mine more important. This position is hard for most people to imagine. I doubt that most moral atheists have worked their way through this position. Sometimes Buddhism, Hinduism, and Taoism use a position like this for instruction.

“I, me, me, mine”. Most people can understand the following position even if they think it bizarre. Call it the “selfish” skeptic. I am. What I want is what I want. I and my wants are all that matter. There is no intrinsic reason why I am better than anybody else; but I am not anybody else; I am me; I cannot know other people; I can know me; what I know is what I want; and so what I want is what I want. Even if I can have sympathy for other people; still what I want is what I want. There is no intrinsic reason why some things are better than other things; but still I want what I want. There is no intrinsic reason why I should respect either morality or immorality. The existence or non-existence of other beings does not matter except as I care about it. They have to prove their value to me; that is their existence. If I want to work hard for a comfortable retirement, fine. If I want to race motorcycles and die in a painful crash while I am

still young, fine. If I want to eat healthy wholesome tasty meals, tasteless crap, junk food, or poison, that is what I want. If I want to give to charity, fine. If I want to rape, torture, and murder, fine. I can watch a child drown in a pool or I can lower my hand to pull him out. If other people want to be moral, that is fine as long as they don't get in the way of what I want. If they do want to get in my way, the stronger will win, and that is all. I will be moral when I want and immoral when I want. This is skeptic's version of "the pursuit of happiness". Sometimes movies and TV portray characters like this.

The selfish skeptic takes a supernatural stance when he asserts he is a single integrated person, with clear wants, is more important than others, his wants are important, and his wants somehow define him. It is a parody of the economic view of the person. Another version of selfishness is when society defines our identities and wants; social scientists are prone to this error. Buddhists, Hindus, and Taoists use the strong skeptic position to attack the selfish position in both personal and social forms, and to attack complacency about everyday life.

Most Westerners think of the following mild skeptic as the paradigm of all skepticism. This position is what some people think of as "rationalism" or what I call "determined rationalism". It is near moral atheism: Do not believe in anything supernatural. Believe in only what is objective and what can be tested. Everything can be explained by natural laws if only we look hard enough. If we look hard enough, we can debunk any claim based on God, gods, or the supernatural. Also, at the same time, we can be moral. We should try to do good. We should use our rational knowledge of natural laws to do good including stewarding nature and governing well. The use of nature to debunk religion and superstition is why this group is called "skeptics". These mild skeptics usually are proud of their intellect, rationality, and disbelief in religion.

In fact, though, the belief that everything can be explained by natural laws, and the act of adhering to morality, are not rational. They cannot be tested and they are not objective in the same way that an eclipse of the moon is objective. Still, most rationalists go along with them and most people think they are part of rationalism. I too go along with them but not as easily. I accept belief in natural law and I accept morality but I see that they are outside of rationalism, they are supernatural (metaphysical or transcendental), and I accept the results of that as well.

When we see that belief in natural laws and in morality lie outside of rationalism, we are forced either to fall back on a stronger skeptical position or are forced to accept some supernaturalism. Not even a moral atheist wants to fall back on a stronger version of skepticism (although some flirt with namby-pamby forms of Libertarianism). At the same time, they refuse to accept supernaturalism. So they get murky, and they tend fall back on attacking religion as a way to really feel rational. They try to have their moral cake and eat their skeptical rational cake too. I accept supernaturalism but I try to keep it as much in line with rationalism as I can. I don't know if what I do is trying to have my cake and eat it too. The rest of this chapter explains.

Some forms of supernaturalism are generally accepted although most people don't see them as supernaturalism. Most people, including moral atheists and myself, adhere to some standards other than simply what is and other than themselves and their wants. Most people recognize virtues such as bravery, recognize beauty, recognize the public good, and recognize morality such as helping other people.

Most people recognize self-interested practicality. People recognize that many things can contribute to practicality such as friends, good food, a lover, power, financial security, and hobbies. They know that each of these separate goals can take on a life of itself, but, at the same time, they know the separate goals must be balanced so as to contribute to self-interested practicality and not to undermine it. A little hard work helps practicality but too much hard work cuts us up. Movies and TV commonly present characters that are out of balance and that pursue some goal very efficiently but oddly; serial killers are a strong type of this character.

Eventually, I will define “self-interested practicality” as “evolutionary success”, but, for now, we can work with an intuitive understanding of practicality.

Practicality differs from virtues, beauty, and morality in that we can pretty much evaluate how well we are doing when we pursue it, the standards for practicality are pretty much public, and the standards are pretty much the same for most people. In contrast, it is hard to compare different beauties, different virtues such as bravery and temperance, different acts even of the same kind of virtue such as bravery, and different good things. It is hard to say if good is more important than beauty or virtue.

When somebody takes a stand on practicality, we can still say that they stand in this world. We can evaluate their performance according to what we can see, hear, and measure. People can objectively evaluate practicality. We can evaluate how well a person reaches a particular practical goal such as comfortable retirement and we can evaluate how well a person reaches general all-around practicality – in most cases a happy and healthy family.

In contrast, when somebody takes a stand on virtue or beauty, we can't do that. We make judgments that can't be directly sensed, can't be measured, and about which people can't fully agree. Yet virtue and beauty are there. We feel they are objective to some extent. Even if we feel beauty and virtue are objective, and even if somehow they really are, we can't fully capture it. A lot of people think this about morality as well, that it eludes direct sensation, measurement, and objectivity.

Virtue, beauty, and morality are not in this world in the same way rocks and trees are in this world, and in the same way that what is done, practicality, what I want, and I, are in this world. Virtue, beauty, and morality require judgments. The judgments require the judge to take a stance not on what can be sensed or measure and objective, that is, on something not in this world.

Morality probably does elude direct sensation and measurement but there is a way in which it is objective. Morality follows the ideas of the Golden Rule and “applies equally to everybody including me, my kin, and my stuff”. (Those two ideas are really the same idea, but most people learn them differently, and so it is useful to refer to both.) If we want somebody to do something, then we have to do it ourselves. If we want all people to tell the truth, then we have to tell the truth too. If we want people to always be fair, then we have to be fair ourselves. If we want all people not to do something, then we have to not do it. The rule “do not steal” applies not only to other people and their stuff but to me, my kin, and my stuff too. If we want them not to steal, I have to not steal. This is objective. This situation can be reasonably clearly seen and reasonably clearly evaluated. If it could be perfectly seen and evaluated, and was perfectly objective, we would not need courts; but it is close enough.

The skeptic who says “what I want goes” is not necessarily impractical. If her goal is to do what she wants, and she has to take into account what other people will do just as she has to take into account how long it takes apples to ripen, then she can be just as selfish as ever. The relation between selfishness, self-interested practicality, beauty, and virtue is less clear. It seems not to make sense to say that a person is selfish and brave at the same time but some people do argue that we are brave as a way to show off, get admired, and get other people to help. Here is not the place to dispute this topic.

The relation between selfishness, self-interested practicality, and morality also is not entirely clear. There is overlap between the three. Selfishness and morality do not go together well. Contrary to popular opinion, practicality and morality do go well together and are closely related. Here is not the place to go into this problem either. Here I only say that, even if practicality and morality go together often, they are not exactly the same. Morality has its own distinct logic, given above as the Golden Rule and “applies equally to everybody”. Sometimes we do not do what is self-interestedly practical when we act morally, even if overall we do act practically when we also act morally. When we accept morality, we accept its logic, its objectivity, and that it is not entirely in this world. We accept something supernatural.

Most people would much rather accept that virtue, beauty, and morality are supernatural than to accept the fall-back positions of the extreme skeptic or the selfish skeptic. Yet when we accept one thing as supernatural, we necessarily open the door to wondering about other things supernatural. We do not have to accept other things as supernatural, but we have to wonder about them, and we have the right to wonder about them. We can think about gods. We do not have to accept that God gave us morality, what is good is only what God says, God and morality are the same, God is entirely good and we are entirely bad, or any other dogma. We do have the right to wonder and it is hard to not wonder.

It does not matter that any of these abilities evolved. It does not matter that skepticism, selfishness, self-interested practicality, virtue, beauty, or morality evolved. It does not matter how they came into this world. It matters only that they are in this world now and yet that some human capacities – for beauty, virtue, and morality – are not entirely of this material world. To me, to say the abilities for beauty, virtue, and morality evolved, makes even stronger the argument that they are not entirely of this world. What is important is not how they came about but how we evaluate them and what we do with them. It does not matter how morality came about but only how we are moral. It does not matter how belief in God came about but how we evaluate the belief.

The strong moral atheist says this:

-We cannot prove the existence of any god. We can explain everything, including all human behavior, by natural laws. Therefore we do not need to refer to god. What we do not need for clear thinking, we should avoid.

-Religion on the whole is necessarily bad. Sometimes religion does some small good but the small good never makes up for the overall bad. Sometimes religion causes real bad, such as burning books, allowing one ethnic group to slaughter another, and in justifying slavery, suicide bombing, and vast differences between the rich and the poor. Yet even if a religious person is usually moral and does not do anything obviously crazy, religion clouds the mind, limits us, and so is necessarily bad.

-We can be moral without religion. Morality is, by definition, good and not crazy.

-There is no supernatural. Nothing points to the supernatural.

-Morality and religion evolved. They were not given to us by God. Morality and religion can be explained entirely by natural laws. We do not need God to explain morality or to explain religious belief. Assuming God exists and using God on that basis to explain morality and/or religious belief only clouds our real understanding of how nature works, and clouds our real understanding of religion and morality.

-Therefore we should get rid of religion but keep morality.

-Religion is an evolved delusion, like thinking we personally can be a great sports hero or top model, or thinking we personally could run the country better than any leaders now. Religion is an especially bad evolved delusion, like the need for more and more money and power. We can overcome delusions, especially if we know they are only evolved. We should overcome the evolved delusion of religion.

-Morality can be explained entirely by natural laws, like religion, but we should not get rid of it, unlike religion. Morality evolved too but it is not an evolved delusion. It is probably not a delusion at all except when distorted by religion. If it is a bit irrational sometimes, it is still a good delusion, like believing in ourselves so we work harder and succeed in the end.

All this makes a lot of sense. I agree that we can explain everything by natural laws, and we cannot prove the existence of God. Religion and morality evolved. Sometimes using God to explain religion and morality does cloud reasoning and lead to error. Religion sometimes leads people to do bad. On the other hand, religion does not have to be a bad delusion and we should not try to get rid of it. Religion does not have to be a source of great bad. We should use morality and all our abilities to lead us to better religion. We should use all our abilities to debunk and reject bad religion.

I have six responses to the argument of the moral atheist.

First, if we accept morality then we have to accept its supernatural status. The fact that morality evolved does not mean it does not have supernatural status. The fact that it has a special logical structure that makes it seem objective (Golden Rule and “applies equally to everybody”) does not mean it has no supernatural status. The fact that morality is usually practical does not mean it does not have supernatural status. If we accept supernatural status for morality, then we have to be cautious about trying to get rid of religion just because it is obviously about the supernatural.

Think of the strong skeptic and the selfish skeptic. If we make any distinctions between items, or between actions, on grounds other than “that is the way it is”, then we are not a skeptic and we accept some supernatural status. If we say apples are better than pears for reasons other than “that’s what I like”, then we impose a supernatural structure on the world. If we say being kind is better than being cruel, then we impose a supernatural structure on the world. Any judgment, including “I like morality” starts us down the supernatural trail. If we have to go down that way, then we better bring a lantern, and we might have to accept animals other than morality.

Second, the moral atheist cannot use evolution to debunk religion unless she also does the same to morality. If both morality and religion evolved, then there are no grounds within evolution to say one is different than the other or one is better than the other. We have to think about them in similar terms, and we have to judge them in similar ways. If we think about them differently and judge them differently, we have to say why in terms entirely within evolution and in terms that do not imply the supernatural. Both eyes and ears evolved. What, in evolution alone, makes eyes better than ears? If we cannot say why in terms of evolution alone, then we cannot say one is better. If we use evolution to discredit religion then we have to use it equally to discredit morality. If we use evolution to discredit religion but not morality, then we say morality is better than religion, and we give morality a supernatural status.

Suppose morality is more practical in some way than religion. That does not necessarily make morality better than religion; it only makes it more practical. If we want to say morality is better than religion because it is more practical, then anything that is more practical than religion is better than religion, and anything that is more practical than morality is better than morality. Sometimes food and sex are more practical than religion or morality, but that does not make them better, it only makes them more practical. Sometimes conniving business strategies are more practical than morality or religion but that does not make them better. When we say morality is better because more practical, we really only say it is better while using practicality as a cover for not having another reason. We should just say morality is better and accept the implications. When we say morality is better, we use a frame, and we judge, in ways that are not accessible to the senses, are not measurable, and are not objective. We make morality supernatural.

The facts that morality and religion evolved, and morality often is practical, make the case for the supernatural status of morality even stronger.

Third, just because religion evolved, it is hard to get rid of. Religion is natural, and it is big and important. Trying to get rid of religion would be like Prohibition. The liking for alcohol is based on evolved chemistry of the body and brain. The sociability that often goes along with alcohol is based on evolved chemistry of the body and brain. We might not like the abuse of alcohol but trying to get rid of it leads to worse results than all the abuse. The same is true of fatty foods and bad political opinions. The same is true of sex. From time to time, some religious groups try to get rid of sex or try to govern it in ways that go against its evolved underlying basis. The results are horrible. The same is true of religion. If we try to get rid of religion, it will be like trying to get rid of sex. The fact that religion evolved does not mean we can get rid of it.

Fourth, people do bad things without religion. People do more bad things, and worse things, without religion. Some of the bad things are really bad like child prostitution and mass murder. When people do bad things in the name of religion, usually they would have done the bad things anyway; they only use religion as an excuse. Religion does make an effective excuse. Because religion evolved and it is in our nature, it is hard to do really bad things without finding a religious excuse, such as kill off all your neighbors of a different ethnic group. But terrible evil without religion has been done, and will be done again. Even when religion is used as an excuse, it does not cause the badness, it only goes along with it. Stopping religion would not stop badness. Stopping religion would not end very much badness, and it would cause some more of its own. Stopping religion would not even end much of the badness that is

done in the name of religion. It would only lead to badness without an excuse or, more likely, finding another excuse to do badness, such as politics or ideology.

Sometimes religion does cause direct badness, as when people withhold medical care out of stupid belief, or when people camp out in the woods waiting for God. But so does politics, booze, sex, drugs, and rock and roll. The trick is to sort out the bad from the not bad, not to suppress anything that might lead to badness.

Fifth, not all evolved perceptions (“illusions”) are delusions even when they are not a perfect mirror image of the world, and not all delusions are really bad. Most perceptions involve a little illusion. The distortions are usually for our benefit. We are not nearly the coherent individuals we think we are, but we need to feel that way to get things done. Other people are not coherent either but we need to think they are to interact with them. We better think of a leopard as a coherent purposeful entity if we are to survive. We are not nearly as important as we think we are, but feeling important often helps us succeed. As physics teaches us, solid objects are not really solid. But we see them that way, and our illusion serves us. Even some delusions are useful. Love is a terrible delusion, but most of the time it turns out well, and sometimes it turns out really well. Not all evolved illusions are delusions; we cannot say religion is a delusion just because it is an evolved illusion. Even if religion is a delusion, whether a delusion is bad or good does not depend only on whether it evolved but mostly on other criteria; we cannot say religion is a bad delusion just because it is an evolved delusion. Of course, it is good to know the world “as it is” as much as we can, and good to think we can overcome delusion when we have to. It would be good to be able to strip away bad delusion from religion when we should. But those are other questions. They apply to all delusion, not just to evolved illusion, delusion, and religion. The ability to believe stupid political ideology evolved, and we need to be able to undo that. Simply knowing that the ability to be fooled by politics evolved might help a little, but what really helps are calm persistent doses of the truth.

Sixth, suppose we can get rid of religion but still keep morality. Whose morality do we keep? For example, ideas about how much women should cover themselves are not just religious, they are primarily cultural. If we get rid of both Christianity and Islam, I suspect people with a formerly-Christian (European) heritage will allow women to uncover about as much as women dare while people with a formerly-Muslim (mostly Semitic with some Indo-European) heritage will insist that women cover as much as possible. As far as I can tell, there is no purely logical-moral basis to settle this dispute. It would be great if we could all live by the Golden Rule, love our neighbors as ourselves, never commit violence, see the whole world in ourselves, and see ourselves in the whole world. But we can't. It is not practical, and it goes against the grain of human nature. Some nasty people would try to hurt our families, and then we would fight back. We have to choose some other more specific moral code even if we look to “applies equally to everybody” and an ideal. As far as I can tell, most outspoken atheists, such as Bill Maher and Christopher Hitchens, are not pacifists, and enjoy when bad people get killed, as when American soldiers killed Osama Bin Laden. In theory, it might be possible to construct a high moral code of actual behavior out of a combination of the ideals of the major religions with reality, but I have never seen this done, and I do not hold out hope. I work toward this goal, but, along the way, I had to accept that I had to start from the teachings of Jesus, even if I later brought in ideas from other religions. That is why I wrote this book. Moral atheists need to be much clearer about their moral basis and the relation of their moral basis to the great religions and philosophies of the world.

Here is bonus point that moral atheists do not make (as far as I can tell) but is important generally and for this book. The argument is a little “airy fairy” but it is not too hard to follow. Morality (1) has its own logic, and (2) the logic makes it objective. Religion has no such logic and does not feel objective in the same way as morality (religion feels objective in its own way but that is not as powerful as the objectivity of morality through logic). Does this make morality not supernatural? Does this give enough reason to keep morality while dumping religion? On the other hand, if this does give reason for keeping morality while getting rid of religion, does the fact that both morality and religion evolved weaken this basis for separating morality and religion? Immanuel Kant thought up the argument about the logic and objectivity of morality, in the late 1800s. He did so against real skeptics (the “straw” David Hume), and he did so in part to give us grounds for keeping morality regardless of what we did with religion. He was religious in his own way, and also tried to develop a more solid basis for religion.

This argument about the logic and objectivity of morality makes me think God planned evolution so it would turn out this way, so it has the opposite effect on me that it might have on a moral atheist. The argument is good grounds for preferring morality to religion, and for making sure that religious belief does not lead us to do anything that goes against universal morality. I take it that way. The argument is not necessarily grounds for dumping religion while keeping morality. A moral atheist might push it in that direction. I do not. The fact that both morality and religion evolved does weaken using the logic and objectivity of morality to keep it while dumping religion, but not fatally. Somebody who wants to keep morality but dump religion still has to explain why morality is so special just because it has its own logic and feeling of objectivity. He-she has to explain what it means that evolution can develop an ability (morality) with its own logic and sense of objectivity. I am sure that some Darwinian moral atheist someday will combine the argument with evolution and push it that way. I doubt I will be convinced.

Summary.

The correct attitude toward religion is not to debunk all religion but to follow our senses of wonder, joy, and awe, and to discredit bad religion. We need to make religion follow good morality. We can do that better if we think about what good religion is. The same can be said for all ideologies. This book tried to understand Jesus in terms of how own best moral teachings, and tried to take him as he was as much as possible. Most people, including me, really can't make do without some religion, so let us have it but make sure it follows the best ideas of the best prophets.

Chapter 5.02 God and Nature

We want to use our sense of wonder with religion and we want religion to go along with morality. We want to know if we can use the wonderful complexity of the world to prove the existence of God. If we believe in God regardless of whether we can prove God, we would like to know about his personality. We would like to know if God is all good. This chapter addresses those issues.

PART 1: ARGUMENT FROM DESIGN

The Argument from Design.

Complexity in nature suggests a planner behind it all just as a wedding or a wristwatch suggests a planner. This idea is at least several thousand years old, and is “natural” in that somebody will think of it eventually and most people will go along with it. It is called the “argument from design”. If it were true, it would settle a lot of argument; but it is not true. Complexity can suggest a planner but cannot prove one. Everything in nature, all its complexity, can be explained entirely by natural laws without reference to any god. This does not mean there is no god; it just means the complexity of nature cannot be used to prove a god or to disprove a god. If we don’t need a god to explain anything, then there is no point to assume a god except to satisfy our curiosity and feed our sense of wonder. I think that is a good enough reason but most atheists disagree. To show how natural law can explain everything would take a lot of space, and I won’t do that here. The best way to get the idea is to watch “nature shows” on TV and to read about evolution. See the Bibliography.

Strongly religious people sometimes push a misuse of the argument from design called “intelligent design”. The substance of the two arguments does not differ, only the name has been changed. Contrary to clear facts, proponents of intelligent design think they can find features of organisms that could not have evolved, and they use these features to “prove” that God exists. Every feature they have found can be explained in terms of evolution. Nothing they have found is beyond natural law. So I disagree with intelligent design. As far as I can tell, proponents of intelligent design do not know the evolutionary record and do not understand evolutionary theory. If they willfully ignore science and the intellect, then they insult God. Their arguments just do not stand up; their arguments are a kind of wish fulfillment.

Anthropic Principle.

I do endorse another variant of the argument from design called the “anthropic principle”. It does not depend on features of organisms, or on natural wonders like the rings of Saturn, but on natural laws, in particular the settings of natural laws. Briefly, the conditions under which sentient-moral life can evolve are rare. We need just the right natural laws, and the laws have to be set in just the right ways. That (1) we have the laws, and (2) the laws are set just right, imply a planner. These facts cannot prove a planner. The term “anthropic” is from Greek for “human”. In this case, it means “sentient-moral evolved being”. The argument says sentient-moral evolved beings are rare, and can only evolve with the right natural laws set the right way, so we are justified in using that fact to wonder about God.

The unusual physical conditions of life suggest some planner who set up the universe so that it would lead to life through evolution. They also suggest that, after starting the universe, the planner pretty much left the universe alone to do just that. This view is a variation on a view from the Enlightenment called “deism” except that this view takes evolution into account.

Life as we know it needs some unusual conditions to thrive: at least a dozen elements such as carbon, oxygen, nitrogen, hydrogen, sulfur, phosphorus, etc; a limited range of heat from about 400 degrees Kelvin to about 500 degrees Kelvin; water as liquid; not too much pressure; incoming energy, usually in the form of infrared radiation, light in the range visible to humans, and mild ultraviolet radiation; and gravity that is strong enough but not too strong. With recent telescopes, we have seen hundreds of planets within our sight that come close to these conditions; but still that is not very many places out the millions of places that we see. The way the universe works had to be set just right to generate the conditions to evolve life and sentient life.

At the time of the Big Bang, probably only one major physical force ruled the universe. Soon after, the one force split into the four forces that rule the universe now. The first two are gravity and electricity-magnetism. Scientists count “electricity and magnetism” as one force. Electricity and magnetism keep electrons near the nucleus of atoms, allow atoms to share electrons so they can bind into molecules, and thus allow the molecules needed for life. The “strong” force binds particles together in the nuclear center of atoms. The “weak” force sometimes breaks apart particles and the nucleuses of atoms; it causes radioactivity; and causes change. Now scientists think there might also be a kind of anti-gravity, or a variation on gravity, that pushes things apart. It is not clear if this should be considered a fifth force or a variation on gravity, like the positive and negative in electricity. All the other forces that we might think of, such as in friction, pulling a rope, or throwing a ball, can be explained in terms of these four forces. All the more complicated events in the world, such as in chemistry and biology, in theory can be reduced to these four forces. We can imagine a world without one or more of these four forces but it is hard to imagine that world with life. We can imagine a world in which a force was stronger or weaker (set differently) but it is hard to imagine that world with life as we know it.

Without gravity, the universe could still have been born and could still exist but not as it is today. The universe would have expanded much faster so that everything would quickly be too far apart to make much difference to anything else. There would have been no stars, galaxies, planets, moons, or comets. Likely there would be only hydrogen and helium dust without even very much light to see it by. At the Big Bang, only hydrogen and helium were created (the very light elements 1 and 2). All other elements were cooked up out of hydrogen and helium in the core of stars. Without gravity, there would be no stars, no other elements, and no life.

Not only is gravity necessary, but it has to be the right strength and the strength has to vary the right way. It is easier to understand how gravity varies by feeling first how heat varies. If you can find an old hot light bulb, or a newer “curly” light bulb, turn it on and SLOWLY move your hand closer to and further away from the bulb (LEDs do not work well for this stunt). The bulb feels cooler as you move away, and feels hotter as you move in; but not directly. It gets cooler faster than the distance gets longer, and it gets hotter faster than the distance gets shorter. More precisely, heat varies as the square of the distance rather than directly with the distance. If you start from 12 inches away and go to 6 inches away, it does

not get twice as hot, it gets four times as hot. If you start from 4 inches away and go to 8 inches away, it does not get one half as hot (twice as cold), it gets one fourth as hot (four times as cold).

Gravity works the same way. Gravity is four times as strong when you get half the distance (twice as close) to the sun, and it is four times as weak (one quarter times as strong) when you get twice as far away from the sun. Here is why this is important: planets, like the Earth, go in orbits around stars like the sun. The orbits are nearly circular; technically they are “ellipses”, which is like an oval. If the planets did not orbit, and if the orbits were not nearly circles, conditions on the planets would vary too much to sustain life. If the planets did not orbit, conditions would be wild, and most of the time planets would be frozen hard. If the planets did orbit but the orbits were not circular, sometimes the planets would be too close to the sun and thus too hot while other times the planets would be too far from the sun and thus too cold. Because the orbits are nearly circular, the planets vary a little bit in temperature and light but not too much. Because they do vary a little bit, life faces different conditions during the year, and thus evolves more rapidly. If gravity varied directly with distance, planets could not form orbits, or, if they could form orbits, the orbits would not be nearly circular. What kind of orbits the planets would make under different conditions of gravity is too technical to go into here but one kind gets the point across: the planets might form complex spirals in which the distance to the sun would get continually larger or continually smaller.

Without electromagnetism, the universe could still have been born but would not be as it is today. Light is an electromagnetic particle, so there would be no light. It is not clear if electrically charged particles such as the proton and electron could still exist without a charge, but, if they could, they would have little attraction to each other. Electrons would not circle around protons in the atomic nucleus, and so atoms could not form. Particles that are now in the nucleus, such as protons, neutrons, and quarks, might still exist and interact but they would not form stars, galaxies, planets, or anything else we know of today. Most heat is carried by a kind of light. There would still be heat in movement of the “nuclear” particles but the heat would move around much more slowly than it does now.

Similar problems arise when we change how electromagnetism varies as when we change how gravity varies. We saw that electromagnetism (including heat and light) varies not directly with distance but with the square of distance. If we changed that setting, electrons could not orbit around the nucleus of an atom in any way that makes sense now. It is possible to imagine other orbits, like the weird spirals that arise out of altered gravity, but to explain them would be too hard here. Most likely, there would be no orbits of electrons at all, no atoms, no molecules, and no life.

Because heat from a star (electromagnetism from a star) does not vary directly with distance, but with the square of the distance, there is a band around the star that is just the right temperature to support life. Around our sun, and around most stars, this band is fairly wide. Around our sun, the band extends from Venus to Mars. If heat did not vary as the square of the distance, the band would not form, or the band would not be right to support life. If heat dissipated quicker, the band would be small and variable, probably hovering only near the sun, around Mercury. If heat dissipated slower, the band would be wider but also less variable. The area too hot to support life would extend far from the sun, probably as far as Earth now. Conditions would be nearly constant within the band, as they are on Venus, and tend to stay too hot, again as on Venus. Life would not face the challenge of variety, and so would evolve too slowly.

Without the strong force, we would have few of the particles that make up an atomic nucleus such as protons or neutrons because there would be nothing to hold them together. Even if we did have the familiar "nuclear" particles, nothing would bind them into atomic nuclei, and we would not have atoms, molecules, or life. Without the strong force, hydrogen and helium could not combine in the middle of stars to make other elements for life. The heat of stars arises when hydrogen and helium combine. Without the strong force, there would be no heat from stars. Stars would be merely very dense, cold, dark, gigantic globs of dust; or they would be black holes. If the strong force were a bit stronger or weaker, then hydrogen and helium might combine too slowly or too quickly, and so stars would burn too fast or too slowly for life. If the strong force were a bit stronger or weaker, stars could not cook up just the right elements that are needed for life.

The weak force causes radioactivity. It seems as if radioactivity has little to do with sustaining life within the right limits, but it does. Most of the heat within the Earth does not come from the sun but from the radioactive elements inside the Earth. The Earth is a big slow nuclear reactor. Without radioactivity, the Earth would be too cool to support life except for maybe a few pockets on the surface that got regular exposure to intense sunlight. If there were more radioactivity, the Earth might be too hot. Even if the Earth was not too hot, additional radioactivity would destabilize the complex molecules that life needs. The circular orbit of Earth does keep it within the narrow band of proper heat from the sun but even that narrow band sometimes fluctuates enough in temperature to endanger life. The heat from the radioactive furnace of the Earth serves as a secondary heat buffer to make sure that the Earth does not get too cool for too long by accident.

The lessons of water are a good way to sum up the effects of cosmic laws and their settings. Ice is a crystal. A crystal is like a flower lattice. A crystal is made up of linked nodes in particular relation to each other. Each node is a molecule or a small cluster of molecules. Ice is a lattice made up of linked nodes of water molecules in particular relation to each other. The relation determines how far apart the molecules are, how dense the crystal is, and how heavy the crystal is. The shape of the molecules, and the relation of the molecules to each other, is determined by the play of two major forces: the strong force and electromagnetism. The crystal is like a big Tinker Toy assemblage. Each node is like a wheel in the Tinker Toy set. The spokes coming from the wheel are like the two forces. How far apart the wheels are, and the relation of the wheels, is determined by the connector pieces (the forces).

Ice is the solid form of liquid water. Almost all solid forms of matter are denser and heavier than their liquid forms. Solid iron sinks in liquid iron. Solid mercury sinks in liquid mercury. But solid water, ice, is very unusual because it floats on liquid water. It floats on liquid water because of the setting of the two forces that make up the molecules and the arrangement in the ice crystal. If the two forces changed even just a little bit, solid ice would not float on liquid water but would sink. If solid ice sank in liquid water, life would be pretty much impossible. Liquid water would continually form ice and sink. Ice that was under liquid water would never melt. The oceans would gradually fill up with ice. Snow on land would melt more slowly than it does now. Rain that fell on the snow would not melt the snow but would float on the snow to freeze as ice. All the land would gradually be coated with ice. We owe sentient-moral life to the presence and exact setting of the strong force and electromagnetic force as they make up water.

We also owe the stability of life to the exact setting of the weak force that causes radioactivity. Water is made of hydrogen and oxygen. In most of their natural forms, oxygen, and especially hydrogen are

hardly radioactive at all. The basic building block of life is hardly radioactive at all. It is a strong stable platform on which to build. If the weak force were even a little stronger, or if the strong force caused hydrogen and oxygen to be made even slightly differently, then water would not be stable enough to serve as the basis for life.

To repeat: these facts suggest a planner God but they do not prove a planner God. A determined skeptic has several rejoinders.

The imagination of Mike Polioudakis is limited. Just because I can't imagine how life would evolve with different laws or with current laws set differently doesn't mean it couldn't happen. It might be that life would evolve better and faster with different laws or with current laws set differently. Life might even evolve better sentient-moral beings or might evolve them faster.

Just because we have these laws and they are set as they are doesn't mean the situation was planned. It is likely this universe is not the only universe that ever was or ever will be. Other universes might have different laws, or other universes might have the same laws we have but set differently. Some of the other universes might have less life or worse life, and some might have more life or better life.

Just because there are other universes with different laws or different settings doesn't mean there is a planner God. Universes might come and go just like hair colors. Sooner or later, one universe will have the right laws set the right way so that sentient-moral life evolves. In that universe, the sentient-moral beings (people) will imagine that a God caused it all. They would be wrong but they can't help thinking of God anyway. We just happen to be in that universe and we just happen to be those people.

Logically this is all correct but it seems contrived. If I gave evidence in a court of law similar in strength to what I gave above for a sentient planner god, for example, evidence that the spouse of an atheist is a cheater, or that the brother of an atheist is an embezzler of family funds, even the atheist would convict. Suppose my neighbor invited me to dinner, I went, and he-she had ready a delicious four-course dinner with soup, salad, and dessert. If anybody said my neighbor was not sentient and did not act on intent, every reasonable sane person would say the doubter was crazy. Suppose over two weeks, a well-ordered vegetable garden appeared on my neighbor's property. If I gave evidence similar to the above that my neighbor was a sentient being with intentions, and that he-she had made the garden, every reasonable sane person would go along. If anybody did not go along, we would say the doubter was crazy. The evidence for a sentient planner God is not logically perfect but it is strong enough to stand up in a court. Yes, there is always logically possible doubt, but there is not reasonable doubt. Eventually the counter arguments sound like attorney whining. We might want to consider what a reasonable case for a planner god might be rather than a logically perfect case – always keeping in mind that we could be wrong.

PART 2: EVIL IN NATURE

Chaos, badness, and evil exist, even in nature, even apart from human choice, and I do not see any way the chaos, badness, and evil can be accommodated with simple belief in an all-good and all-powerful God. The presence of evil suggests that either God is not all good, or not all-powerful, or that we cannot

understand. I do not find any theology about God and evil convincing. In the end, we just have to accept a certain amount of chaos, badness, and evil without being able to explain. I do not know if this would make moral atheists happy or sad.

Among explanations for natural evil that do not lean on traditional theology, maybe the best explanation is that God has to endure a certain amount of chaos, badness, and evil in order to set the stage for evolution to produce sentient-moral beings, and God has to endure a certain amount of chaos, badness, and evil within evolution to reach the same goal. God has to endure some chaos, badness, and evil to produce beings with free will. The beings with free will have to endure it too. This argument is probably true but it is not fully comforting. See the movie "Time Bandits". This argument suggests again that God is limited. Even if we accept this argument, we cannot know God always makes sure that only the most limited necessary amount of evil arises. It seems to me there is more evil in this world than is strictly necessary to produce sentient-moral beings.

The best way to convey the problem of chaos, badness, and evil in nature is through a few sharp examples, primarily examples of evil in nature that is caused by the action of organisms, is not caused by people, and is not caused by purely physical events such as a tsunami or a hurricane. I could offer dozens of other examples.

"Oxygen Catastrophe".

Geologists use this phrase for an amazing transformation of the biosphere that occurred about 2.4 billion years ago. Originally the atmosphere of earth had little free oxygen. The atmosphere was mostly nitrogen and methane, much like the atmospheres on Venus, Jupiter, and Saturn. Most of the oxygen was locked up in compounds of iron, carbon, or silicon, and so was not available for life. Carbon was not widely available as carbon dioxide but was locked up too. The original organisms on earth did not breathe oxygen as do animals now, and did not even use carbon dioxide as do plants now. The original organisms were anaerobic, neither plant nor animal. They used energy in gases or heat, used some sunlight, and "ate" methane. Leaving aside life forms that we cannot well describe now, probably the most similar modern life forms to original life forms are prokaryotic bacteria. The atmosphere then did not block harmful sunlight very well, and it stored a lot of heat. Earth was like Venus but much cooler. Land life could not have existed. Animals as we know them could not have existed because animals need a lot of energy that can only come from burning food with oxygen, and there was no available oxygen to burn.

Then some carbon dioxide became more available; I do not explain why. Then some organisms evolved the ability to transform carbon dioxide into carbon and oxygen, keeping the carbon but releasing the oxygen. Some of the organisms might have used heat or chemical energy to do the job at first but eventually some of the organisms that used carbon dioxide also developed the ability to photosynthesize, to use light from the sun to do the job of "eating" carbon dioxide. As they ate carbon dioxide, they released oxygen. They were the first plants. They flooded the atmosphere with oxygen so that the composition of the atmosphere changed to be similar to what we have now but with even more oxygen. This was massive biological pollution on a scale seen never before or since, far surpassing the pollution that people cause now. We think of oxygen as a good thing but at that time oxygen was corrosive poison. The vast majority of world life died because some organisms selfishly used carbon dioxide and left

poisonous oxygen as a byproduct. We do not know how many species died out because they were soft organisms that left few fossils. Even some photosynthesizing species died out because the amount of carbon dioxide dwindled while the amount of oxygen increased. Some of them literally polluted themselves to death. Nature turned on itself. Not all of nature is necessarily good.

At the same time, the new atmosphere cooled the surface of the earth, and it also created the ozone layer to protect against some of the harshest rays from the sun. With the new high levels of oxygen, a large amount of energy was available for species that could use oxygen to burn food. Animals could evolve in the sea. With plants using carbon dioxide to make oxygen, and animals using oxygen to make carbon dioxide, life developed the cycle that we find now. Under the protection of the new atmosphere, the new cycle became stable, and plants could move onto land. Animals followed the plants onto land, and a bigger version of the cycle then became stable on land. Nature had overcome its turning on itself. A new road opened, which led eventually to people and morality and ideas about God – but only at a huge cost. If you wish, you can say God overcame evil (oxygen poison) to find a greater good (plants, animals, natural cycle, evolution of sentient beings); but this opinion comes from looking at things from the human point of view; and the organisms that had to die to allow the overcoming of evil would not agree with this point of view.

Great Extinctions.

The end of the dinosaurs about 65 million years ago was a big extinction of big animals but it was hardly the biggest extinction ever on earth. After the oxygen catastrophe, there were at least three, perhaps five, massive “extinction events” that led to the end-of-life-as-it-was-then-on-earth and to the arising of new kinds of life. I give some ideas about the causes for the events but nobody knows for sure. Life did not evolve gradually in a series of small polite steps in which the “lower” aided the “higher” but through a process more ugly and perhaps more beautiful too.

Cambrian-Ordovician-Silurian Extinction Events.

This was a series of events taking place about 540 to 450 million years ago. Life was still in the seas. The amount of oxygen in seawater depleted, and perhaps glaciers covered much of the earth. Maybe animals were using oxygen faster than plants could make it – not unlike what people are doing to the Earth now. When oxygen depleted, it might have triggered off the cold. The combination of low oxygen with cold temperature killed plants even in the ocean. The lack of plants then killed animals. Because animals died, the level of oxygen increased again until the usual plant-animal-carbon-dioxide-oxygen cycle began again. Plants and animals might have gone through several cycles like this until they evolved a reasonably stable long-term balance.

Permian-Triassic Extinction Event.

This was a single massive extinction, the greatest in earth history other than perhaps the oxygen catastrophe, about 250 million years ago. It wiped out maybe 96% of all species at the time. Paleontologists call it the “Great Dying”. Most life was still in the seas. Perhaps the Great Dying began when stored gases such as methane and carbon dioxide were released from the sea floor, upsetting the cycle of carbon dioxide and oxygen. Probably shortly after the decline began, the greatest volcanic

eruption in “modern” history occurred (in this framework, ancient history is history in the first billion years after the initial formation of the earth), maybe in what is now Siberia; that eruption finished off the process of massive short-term death.

Triassic-Jurassic Extinction Event.

This was about 200 million years ago, probably caused by changes in the balance of oxygen and carbon dioxide, and by fluctuations in temperature. Life had already moved onto land. Plants moved onto land first. It took a long time for animals to follow. Maybe the plants on land created oxygen without yet enough animals on land to restore the balance between carbon dioxide and oxygen. The imbalance likely caused other effects such as widespread glaciers and cold. Death spread across the land and into the sea. The extinctions at this time did begin the era of “middle life”, the Mesozoic, and led to the development of modern fishes, amphibians, and reptiles.

The Cretaceous-Tertiary (K-T) Extinction Event. This was the extinction of the dinosaurs about 65 million years ago. It separated “middle life” (Mesozoic) from “modern life” (Cenozoic). The extinction of the dinosaurs allowed mammals to diversify, proliferate, and dominate, and so eventually led to humans. The cause was a large meteor that just happened to hit the Earth. Suppose we say the extinction of dinosaurs was necessary for the rise of mammals and the rise of humans with morality, so the extinction of the dinosaurs was part of God’s plan or Nature’s plan. Still, this seems like a terrible waste, and an immoral way to reach a higher morality.

Tarantula Hawks.

Spider wasps are a group of several species of wasps that live by preying on spiders, often by leaving their larvae in spiders as a parasite. Tarantula hawks are a type of spider wasp that specializes in tarantulas. A tarantula is a big spider that is itself a hunter. It digs a burrow or builds a nest in a tree, and then comes out to capture other animals. Sometimes they are big enough to capture lizards, birds, and small mammals. They do not bite people without being annoyed first, and some people keep them as pets. Tarantulas fear little but they are terrified of tarantula hawks. Tarantula hawks are solitary wasps; they do not live in colonies like bees. The female hawk looks for a female tarantula outside of her burrow. The female hawk seeks a female tarantula because females are bigger, meatier, and juicier than males – so much for sisterhood and the natural sanctity of shared motherhood. The wasp stings the tarantula, which sting permanently paralyzes the spider but does not kill it. Although the wasp is smaller than the tarantula, it drags the spider back into the spider’s own burrow. The wasp lays a single egg on the tarantula. From the outside, it seals up the tarantula’s burrow to insure the safety of its egg and the egg’s meal, the paralyzed tarantula. Then it flies away. When the egg hatches into a larva, it eats its way into the still-living paralyzed tarantula. It eats inside the tarantula for days. The larva avoids the vital organs, eating first the muscle and other organs, to keep the tarantula alive as long as possible. When the tarantula begins to die, the wasp larva eats it all. It finally leaves a dried out husk. Then the larva transforms into a wasp, digs its way out of the burrow, and goes to seek its own tarantula. If people are like tarantulas, then tarantula hawks are like the “aliens” from the movie series “Alien”. If nature is like tarantulas, then people are like tarantula hawks. I do not see how this process can be called anything but evil even if it happens between spiders and wasps. It long predated people, I do not see how the devil

could have caused this evil to appear in nature, and the rising of people did not in any way overcome and transform this evil.

Comments.

My ideas about chaos, badness, and evil are necessarily from the point of view of a limited being who evolved within the system and evolved to dislike too much chaos, badness, and evil. Still, I stick to my judgment. I can't do anything else.

I do not accept the existence of the Devil, and so I cannot use the Devil to explain away evil. Because some of the evil is in nature apart from humans, I cannot use bad human will to explain away all the evil. We are just stuck with some evil.

If all this chaos, badness, and evil is part of God's plan, then that level of planning is beyond me. Being eaten by tigers and being eaten by cancer are both natural. I can accept the idea of predators-and-their-prey-with-an-even-chance-for-the-prey (tigers and deer) but I cannot accept the idea of a child being eaten alive from the inside by cancer. I cannot accept debilitating diseases such as arthritis, malaria, and elephantiasis. We might have to tolerate some evil and we might even benefit from some evil but God could have arranged the universe to evolve humans without evolving as much hard evil along the way. I can see how facing evil that is created by humans might be part of God's plan and might be part of growing up for humans. I do not see how natural evil can be explained that way. I do not see how excess evil, human or natural, against which no reasonable person could prevail, could be useful or how it could be part of God's plan. I do not see how child abuse that results in a warped and abusive adult can be part of God's plan. I do not see how turning children into raping, murdering guerrillas can be part the plan. I do not see how destroying most of the biodiversity on Earth now by supposedly moral sentient beings (humans) can be part of God's plan, even if it resembles the oxygen catastrophe, even if it leads to a higher form of life later.

Chapter 5.03 Evolutionary Precursors to Morality

This chapter explains background points about evolution that we need before we can get to how religion and morality evolved. You will think of a few questions that are not answered here. To answer them would require too much more about how evolution works. See the Bibliography and see my other materials on the Internet.

About Evolution.

Genes are important in evolution but how they are important is too much to go into here. Think of genes as the bits of information that individuals carry that lead them to have features. Genes lead some individuals to have brown eyes and some blue, lead some birds to have longer wings than other birds of the same species, or lead some cows to be able to digest loco weed better than other cows.

The most important focus in evolution is the individual. We understand how evolution works by looking at the evolutionary success of individuals. We do not look at the species as a whole. We understand groups in terms of individual interactions. We do not assume that the group or the species can control individuals to make the individual do what is “best”. Individuals always do what is best for them. That is not usually narrowly selfish, as we will see.

The best way to think of evolutionary success is as long-term reproductive success. Successful individuals have the biggest families over many generations. Successful animals out-reproduce their fellows over the long run.

A feature is any aspect of an individual that can influence its success: height, weight, eye color, how well it digests starch, length of wings, length of beak, how well he-she speaks in council, etc. A feature is practical, or “well adapted”, if it leads to evolutionary success for individuals, if it leads to long-term reproductive success for individuals. That is what I meant by “practical” in previous chapters. Compared to brown hair, white hair is practical and adaptive for polar bears because it allows them to hide in the snow, eat more seals, and have more grandchildren.

Evolution is an automatic process, driven by reproduction. Some organisms that have a feature in a particular situation automatically out-reproduce other animals that do not have the feature, and so the animals with the feature automatically come to predominate. If a big bear is better than a small bear at finding food, staying warm, and reproducing, as in the cold north, then big bears automatically become the standard bear where they reproduce well. If a small bear is better at finding food, staying cool, and reproducing, as in the tropics, then automatically small bears become the normal type of bear there.

There is no best feature everywhere. There are only better features in particular situations. Natural selection through differential reproduction automatically selects what is a better feature in a particular situation. Sometimes big, fierce, fast, and cunning is best and so automatically becomes the norm – but not nearly as often as you might think. Sometimes small, cautious, slow, and straightforward works even better and so becomes the norm.

Evolution depends on competition. Natural selection by reproduction is competition. If robins with red breasts had not competed against robins with green breasts, and out-reproduced them, there would be no red breasts today. If robins had not competed with crows over the past few millions years, and won sometimes, there would no robins today. If coyotes and wolves did not compete, neither would be as they are now.

Evolution depends on comparative competition. It is not enough to just get by; you have to do better than your fellows of the same species. The most successful deer are not the ones who just live through the winter but the ones who live through the winter and are ready to breed next spring. The most successful eagles are not the ones who catch a few rabbits, but the ones who catch enough rabbits to feed many chicks well and so get all their chicks started quickly and surely on new families.

The importance of competition, especially comparative competition, can lead to situations that middle class Americans don't like, such as when male lions kill the cubs of rival males. It leads to "keeping up with the Joneses". Mostly, though, competition is not horribly ugly. Mostly it is a race for food, mates, and places to hide. The beauty of nature, and other benefits of evolution, could not have come without competition. Without competition, we would not have eagles, deer, tigers, and beautiful glowing but poisonous jellyfish.

Cooperation and group life are two of the benefits of competitive evolution. Some animals cooperate so as to better compete against other animals that do not cooperate. For example, ants cooperate to better compete against insects that do not. Wolves cooperate in packs to hunt large game and so compete against coyotes, which do not cooperate.

Morality evolved in the context of group life, which evolved because of competition. Odd as it might seem, we owe the presence of morality to some animals cooperating with each other to better compete against other non-cooperators, as we will see. The next few sections describe some processes in evolution that we need to understand to appreciate how competition leads to group life, cooperation, and morality.

Smearing Individuals Across Families: Inclusive Fitness and Kin Selection.

The terms "inclusive fitness" and "kin selection" have slightly different meanings but the difference is not important here. Here I describe what is common to both. Remember both terms in case you see them elsewhere.

Individuals are the most important focus when trying to figure out the evolution of any feature, including morality and religion, but they are not the only focus. The edges of individuals are not absolutely clear-cut. Individuals are "smeared" a bit among their kin because genes are shared among kin. The more closely related, the more that kin have genes in common. It is easy to see that what affects children also affects parents because children are the reproductive success of their parents. It is not too hard to see the same thing for grandchildren except that now we have two sets of two grandparents who indirectly share genes through grandchildren. Just as parents and children are linked, siblings are linked too because they share many genes in common; they all come from the same genetic origin. What happens to one brother affects his brothers and sisters, and vice versa.

In fact, a brother can succeed well enough in evolution without having any children of his own if he helps his siblings with their children. A person can succeed through nieces and nephews, because his nieces and nephews carry many of his genes, as old maid aunts and old bachelor uncles have done for a long time. It is harder to see that this effect spreads across all people that are related to each other such as third cousins and great grand nephews.

The key to detailed understanding is that people are not related to other people equally. The closer the kinship is between two people, the closer the potential success through another person. So the closer the kinship is, the more likely two people are to be concerned about each other and to help each other. Parents help children more than nieces or nephews, and siblings help other siblings more than they help cousins.

Sometimes quantity can overcome quality. Suppose a man can help six nieces and nephews go to college but can help only one childless sister with her medical problem. In that case, he is better off helping the many nieces and nephews. The arithmetic of these comparisons is not too hard in theory but in practice can get complicated, so I do not go into it here.

Competition is always comparative. Because people are smeared throughout families, the arena of competition and comparison is not only individuals but whole clusters of related individuals. People compete with, and compare themselves to, their peers not just as individuals but as whole sets of their kin to whole other sets of kin.

Families compare themselves to other families. If our family is doing about as well as the average, or better, then we feel good and we tend to keep doing what we are doing. If our family is not doing as well as the average, then we feel bad, and we seek something else. We can try to get our whole family to follow the lead of other families. This is really keeping up with the Joneses.

The idea of inclusive fitness does not lead to the idea that the group is more important than the individual or that the greater good of the group can override the needs and actions of particular individuals (except in the short run).

Inclusive fitness (kin selection) does force people to consider how their actions affect other people. It forces them to consider not just how their actions affect particular other individuals but whole groups of kin. It forces people to consider not just how one person affects other individuals or groups but how groups of kin affect other individuals and groups.

Inclusive fitness lays part of the foundation for group cohesion and for the evolution of morality. In loose terms, it gets animals to see themselves in others to think of their welfare as tied to the welfare of others, and to think that the welfare of them affects the welfare of others. Inclusive fitness gets animals to think in terms of their life in a group, how they affect others, how others affect them, and how they are all tied together. This is the start of "do unto others" and "applies equally to everybody". On the basis of inclusive fitness alone, animals would think only of their kin in these terms. Yet once the basis has been laid in terms of kin, it can be extended to lesser kin and even non-kin under the right conditions. In stereotypical terms, family life lays the foundation for group morality.

Commitment.

Evolving organisms strive to survive and reproduce over the long haul. Usually the best strategy is prudence tailored to the situation. It makes little sense for a house cat to chase a buffalo even if the buffalo might provide a thousand meals because the buffalo is likely to step on the house cat. Evolution is usually reasonable. Many emotions are prudent, such as fear of large animals with big teeth, and friendliness toward somebody who is friendly to us. Some emotions seem not so prudent, such as a burst of anger against a person twice our size. Moral sentiments often seem non-prudent or anti-prudent: if we saw that not stealing was in our strategic best interests then we would not need somebody to tell us not to steal. If we saw that telling the truth was in our strategic best interest then we would not need to be taught to tell the truth. So we need to think about how seemingly non-rational action could actually serve self-interest as well as can prudence.

Sometimes commitment seems irrational in the short run but it can help us in the long run if it does not kill us now. In the movies "The Seven Samurai", "The Magnificent Seven", and "The Thirteenth Warrior", poor villagers cannot stand any longer to be milked by bandits, even though the bandits leave the villagers enough to get by. So the villagers hire warriors to fight the bandits, and the villagers participate in the fight. The villagers have a lot to lose; but if they win, they are forever free of bandits, and so they have a lot to gain as well. During the preparations, the warriors make sure the villagers understand that they must be committed; there can be no wavering. Wavering does not mean return to the original condition, it means total defeat. In "The Thirteenth Warrior", the "hired swords" had to kill a villager to make the point.

Some emotions are the same way. As many a teen TV show has taught, standing up to a bully is scary, but, if you do, even if you do not win this fight, you are forever free of the bully and forever earned self-respect. If the bully knows you will fight, he-she also knows that sooner or later you will win the fight, and the bully backs off. Getting married means committing to one person and foregoing other people. Foregoing other people is a lot to lose, but sticking with one person means a better chance of raising a family and succeeding in the long run, and so is a lot to gain in exchange for what is lost. People that can commit despite the short term temptations do better overall.

Not stealing means to miss out on a lot of short-term opportunities but it also means to gain stability in our lives, loyalty from others, and friendship. A commitment to honesty might mean some short term loss but can mean greater long term benefit. The old adage "honesty is the best policy" is really true often enough. For a man, commitment to one wife might mean missing the chance to produce a few stray bastards, who might not even be your children, and who have poor chances to start their own families; but it also means a good chance to raise children, who likely are your own, and who have a good chance to grow up to start their own families. For a woman, commitment to one husband might mean missing the chance to get "good" genes from some passing hot stud. On the other negative hand, it also means having a few children that nobody will help you to raise, who likely will not survive to have their own families, and missing the protection of a man for you and your family. More positively, missing out on the stud in favor of a solid man means a good chance to have a husband who will help you raise your children by him, children who likely will survive to start their own families.

Commitment can be morally and practically good. Most morality requires a certain feeling of commitment. Most commitments produce a moral feeling.

Morality has other practical benefits than those that come through commitment but often it takes a minimum commitment to gain those other benefits. We need a sense that a charity is really committed to good works rather than administration before we donate. We need to be able to trust our fellow office workers when we leave our valuables in our cubicle. We sense the force of the commitment through the idea of “should” and “should not”.

Reciprocal Altruism.

“You cover my back and I'll cover yours; you scratch my back and I'll scratch yours; you give me some of your apples and I will give you some of my pecans; you give me some of your pecans now in the fall and I will give you some of my raspberries next spring”. “Reciprocal altruism” means to give something now in expectation of getting something else now or in expectation of getting something else later. The item exchanged can be physical such as an apple, or can be an act (service) such as covering my back. The exchanged “item” can even be a human, as when I give my daughter to your son for marriage. The return does not have to be the exact same kind of item. The values given and received should be about equal over the long run although the values do not have to be equal over the short run. This is what people think of as a neighborly relation or friendly relation. It is the relation that should hold among kin outside of the immediate family.

The term “reciprocal altruism” is a bit misleading because it does not necessarily involve what we think of as altruistic sacrifice. It means to trust someone enough to help them now when they need help in hope that he-she will help us later when we need help. The “altruism” refers to the fact that the payback is delayed, so we do not get something right away, so technically we give without receiving right away. In fact, we do receive eventually or we would end the relation and it would not be “reciprocal”. The “reciprocal” means that you do it for each other. A circular version of this relation has “A” help “B” who helps “C” who helps “D” who helps “E” who helps “A”, and potentially so on. The basic idea is still the same.

Many non-human animals engage in reciprocal altruism so reciprocal altruism does not necessarily need a sense of morality to carry on. When pack animals hunt, they engage in both helping kin and in reciprocal altruism. Sometimes animals sound warnings to indicate that a predator is near, and so endanger their lives to warn others. In doing so, they show reciprocal altruism and kin selection because they hope some other animal will do the same for them later when the other animals see the predator first, and the animal they help now might be kin. A crow cawing when it sees a man coming engages in reciprocal altruism with other crows. Sometimes tolerating other animals at a feeding site is a version of reciprocal altruism as when bears tolerate other bears on a stream during salmon run.

Reciprocal altruism builds a basis for morality because the delay between getting and receiving invites moral interpretation and moral rules. All parents teach their children to share now so that siblings will share with them later, and even to share with non-kin so that non-kin will share with them later. This is a moral feeling. The possibility that somebody might not give back after we have given, or might give us

less than we gave him-her, attunes us to cheating and the need for enforcement. This is a moral feeling too. Effects from reciprocal reciprocity and from inclusive fitness (kin selection) often go together.

Generalized Reciprocity.

Generalized reciprocity is a special kind of reciprocal altruism in which we give to (one or more members of) a group, and we do not expect to get a return necessarily from the particular person to whom we gave but can get a return from anybody in the group. We might get a return from that particular person but we do not have to as long as we get a return from some person in the group within a reasonable time. The trading cluster can be one group with a lot of members who trade among themselves, one person who trades with a whole group, two groups who trade among themselves, or a whole cluster of groups who trade among themselves. Often the group is a family. I had a school mate who lived across the street. If I helped anybody in Larry's family, I could expect help in return from anybody else in the whole family or from the family as a whole. Larry's closest friend in our family was my brother Dino. If anybody in Larry's family helped Dino or me, I could help anybody in Larry's family in return. Larry's whole family was in a good exchange relation not just with Dino but also with me and with my parents too.

Generalized reciprocity is common among people. It appears also in non-human animals that live in groups, such as monkeys, wolves, and birds; but it is not clear how common it is with them, and it is not clear if we can best understand exchange among them as true generalized reciprocity.

Generalized reciprocity is especially prone to cultivating morality. The biologist Richard Alexander (see readings) stressed this. We see connections within whole groups of individuals, and between whole groups. We see in terms of what we do, what they do in response, what we do in response, what they do again, and so on. When we trade generally within our group, everybody in our group becomes equivalent to everybody else. What applies to one person in our group applies to everybody almost equally. When we trade with another group, from our point of view, what applies to one person in that group applies equally to all people in their group; and, from their point of view, what applies to any one person in our group applies equally to all people in our group. Groups tend to become "generalized others". We think of everybody in a group as equivalent, so the group becomes one big person with whom we interact rather than a whole bunch of particulars. We think of the group as having a code, and we think of the group as enforcing the code on members. Reputation becomes a way of assessing individuals within our group and of assessing whole groups of other people. If one person in our group does a bad thing, other groups will think we are all bad. So we police all the people in our group because we don't want to suffer as a result of what somebody else in our group does. We expect other groups to do the same. If we can't police our group, nobody will exchange with us, and we will fall apart. If other groups can't police their members, nobody will trade with them, and we expect them to fall apart. If groups can police their members, then we think of them as especially moral, and want to exchange with them.

Selective Attachment Through Natural Selection.

People live a long time, have excellent memories, have extensive kin ties, have extensive interaction patterns that are based on kin ties, have friends and enemies, and have extensive interactions that are based on relations with friends and enemies. Acts of inclusive fitness include sharing, protecting, nurturing, teaching, guiding, cooperative hunting, help in conflicts, etc. People have the most extensive

reciprocal altruism in nature. Reciprocal altruism can include most of the same acts although not always to the same degree. Natural selection makes sure that people aim emotion, commitment, acts of inclusive fitness, and acts of reciprocal altruism toward the people and situations that best serve our evolutionary (reproductive) success. Natural selection makes sure we avoid showing emotion, commitment, acts of inclusive fitness, and acts of reciprocal altruism toward people and situations that do not help our evolutionary success or might hurt it. Natural selection fine tunes the degree to which we show emotion, commitment, acts of inclusive fitness, and reciprocal altruism so our actions help us as much as possible while hurting us as little as possible. These ideas have been verified in many well-done academic studies. These ideas apply to humans as well as non-humans.

Morality, Religion, Kin Selection, and Reciprocal Altruism.

Most books on the evolution of morality or religion see morality and religion as growing out of kin selection and reciprocal altruism. Exactly how is not always clear but maybe something like this: Kin selection and reciprocal altruism take individuals beyond themselves. They tie individuals together. Kin selection and reciprocal altruism require individuals to consider others. They require individuals to see that what individuals do to others can help individuals, and vice versa. Selfishness and isolation can work to some extent but they do not work as well as kin selection and reciprocal altruism. People have unusually large systems of kinship and reciprocal altruism. When people had to consider their kin, they naturally were led to consider their partners in reciprocal altruism. When people considered their kin and their partners in mutual altruism, they natural were led to consider a lot more people. Eventually people were led to consider everybody. Of course, people could not behave toward everybody as if he-she were kin or were a partner in reciprocal altruism, but the idea would extend outward anyway. The extension of the idea outward is morality. It is morality of a kind that works well with religion. When our ancestors found themselves living in groups (for whatever other reasons), kin selection and reciprocal altruism served as the basis for religion and morality to evolve. Various writers see different key triggers in the process, some stressing reputation, enforcement, pro-sociality, group hunting, fire, and various technologies. The sticking point is to figure out why people differ from other animals, and what triggered of the cumulative process for people alone.

All this is true, and kin selection and reciprocal altruism did play a big role in the evolution of religion and morality. Although most writers have correctly identified most of the ingredients in the mix, I do not think any writer has gotten the recipe quite right. As long as scientists think of morality is one thing and think of it in contrast to altruism, I think they will not be able to get the recipe right. To argue would take us too far off track. For here, we have most of what we need to know; the exact mix, exact process, and particular trigger do not matter. We do not need to know why people differ from other animals. We only need to know that religion, morality, and sentience evolved together in the context of group life, the above factors were important, and that it was a mutually supportive cumulative process. If other particular points become relevant later, I bring them in.

Mutually Beneficial Balances of Strategies.

Because of comparative competition, not all individuals can fully succeed at the same time. To live in groups, we have to compromise. Usually the benefit from living in a group exceeds the cost. Not everybody benefits equally. Because of the compromises, not everybody does as well as they possibly

ideally might have, not even the members who get the most. The group can still persist even though even though members can see how they might have done better in an ideal situation or might have done better if they had been at the top. Some members might be so dissatisfied, and suffer so much in group life, that they think they could do better outside the group. That might be true if they were not even more vulnerable to predation and starvation outside the group. Sometimes the group can persist when most members are satisfied with their success and the members who are not fully satisfied still have to put up with the situation because their alternative - ostracism, banishment, and failure - is even worse. In natural selection, the compromise is based on reproductive success – the measure of “currency” of the situation is reproductive success. Everybody gets to have at least a little reproductive success, or at least a reasonable chance at some reproductive success, even if reproductive success is rarely equal. Most of us have worked in offices, factories, or crews where the situation is the same but success is measured in money, status, power, privileges, and sometimes sexual access. In evolutionary life, those treasures are means to reproductive success. Many TV shows are based on the dynamics of strategic balance, such as the famous show “Dallas” or the modern “reality” TV versions such as “Survivor” and “Big Brother”.

Among social animals, a mutually beneficial balance of strategies is the basis for social organization. All the forces of group life described above play a part. Biologists explain the social organization of baboons, macaques, chimpanzees, bonobos (“pygmy” chimpanzees), gorillas, wolves, wild dogs, hyenas, lions, and many other animals in these terms. Among humans, the same was true while we still lived as hunter-gatherers. The same is still largely true among us now but the picture is complicated by the sheer complexity of human life and because humans go after intermediate goals such as money and power in themselves without obviously using those goods to go after reproductive success.

The features of the balance depend on the situation. This is a large field of study in itself, particularly in economics and political science, where academics use “game theory” as a tool for analysis.

Usually it takes a while to set up a new balance, as when a new high school opens up or a new type of business starts on a large scale in a new location. Once the balance is set up, people do not like to fool with it very much. Nearly all people lose during a transition period, and the amount they lose during the transition is likely to be more than they might gain in a new later balance. When somebody is sure to gain more than he-she loses during transition, then he-she might still stir the pot. That is also a theme on TV shows. When somebody important dies, the balance necessarily changes, and then turmoil often ensues as people vie to see who gets the best out of the new balance. That is the “back story” behind much real life dynastic history and behind the elaborate funerals and elaborate weddings of real life from poor people to dynasties. In the words of Louis Armstrong, to make sure the balance does not swing too far too fast, a person might arrange to have two valuable coins put on his-her eyes at his-her funeral “to show the boys I died standing pat”.

A mutually beneficial balance of strategies usually approaches the greatest total practical good that can be achieved in a situation even if it rarely achieves that goal. Any change is likely to result in a loss for many people, at least temporarily. Thus, a mutually beneficial balance of strategies takes on a moral tinge or even holy tinge. Finding it and keeping it are more than practical goals, they are moral goals. Rules that preserve it take on a moral character. People who disrupt it are cheaters and villains, or they are rebellious heroes who have overturned repression so as to instigate a new balance with new justice

for us. Along with kin selection and reciprocal altruism, a mutually beneficial balance of strategies is one of the forces to sustain the evolution of the capacity for morality.

Chapter 5.04 The Evolution of Religion and Morality

This chapter describes how religion evolved and describes more of the conditions that led to the evolution of morality. This book does not explain fully how morality evolved but it does give the basic idea. I go into details elsewhere. Technically, the capacities for religion and morality evolved. Religion and morality do not evolve biologically although they change historically and vary by culture. "Religion evolved" and "morality evolved" mean the capacities evolved. A change in the content of religion (Roman Catholic or Lutheran) or of morality ("pro life" versus "pro choice") is not biological evolution. The capacities for religion and morality are the same in all people and all cultures, and do not change with changes in content. Thai people do not have a different capacity for religion than Greek people although Thai people stress different aspects. I am not concerned with change in the content.

Religion.

The evolution of religion is fairly simple if we ignore links to morality and social life. From an old Hindu parable: Imagine you are walking down the road, reach a shallow bend, and see a squiggly dark line a few feet away. You can't quite make it out. It could be a twisty stick or a poisonous snake. If you over-react by taking the stick for a snake, you feel a bit foolish for having a lively imagination, but you live, and you pass on your genes for a lively imagination. If you under-react by taking the snake for a stick, you die, and your genes for stodginess end. Often it is better to over-react than to under-react. This over-reaction is part of not exactly mirroring the environment and part of having distinct mental organs. Life situations often are not symmetrical. Situations are biased toward lively imagination, and the bias accumulates. Because of cumulative asymmetric bias, all people would gradually tend to see the world as livelier than it might really be.

When people have a choice between seeing a situation as mechanical or as lively, nearly all people see it as lively. We "go for" lively in nearly all pairs of contrasts. When we can see animals as mute or as having speech, we imagine they can talk. When we think that animals can understand us or not, we think they can understand us. We personify. We even think of inanimate objects or events as having a personality, such as Betsy the rifle, Betsy the car, or Bob the hurricane. Mountains are alive and have their own spirit. Trees are alive. Each tree has its own spirit, and each kind of tree has a spirit peculiar to that kind. The woods are full of Ents, but, alas, no Ent wives. Get two flashlights, one with a white light and the other with a colored light. Shine them on a wall, and make one spot chase the other. Everybody will see a chase, yet two light spots chasing each other is impossible. With three lights, you can make one light give something to the second, and the second one return it. That is even more impossible yet that is something we are primed to see. We do to the natural world what group life has done to us and to our minds. We see the world in terms of speech, intention, others, giving, reciprocity, generalized other, and all the other mental abilities.

Already this is religion. The particulars of religion depend on the particulars of each group in its own environment, with its culture, social organization, and history. The liveliness of the world, the human imagination, and social dynamics, all interact to form the particular religions of particular groups at particular times. How this happens is too much for here.

People tend most to make lively what is materially tangible, what they can see, feel, and hear. We do not tend as much to make lively what we do not immediately experience; but we will do that too under the right conditions. We make the wind alive and we also make the change in winds with the seasons alive. We make the trees alive and we make the forest alive although the forest is not any one particular tree. Individual tigers have a spirit and there is also a spirit of tiger kind. This is how we have invisible and intangible spirits.

Originally, human religion among hunter-gatherers contained many various living, lively, and spiritual things. Probably original religion did not have a strict order and hierarchy among the many lively things. The spirit of the elm was not necessarily higher than the spirit of the otter. Later when people lived in societies with centralized power, strong clear order, and hierarchies, they projected that onto the spirit world. Then the spirits of the bear, the oak, and the bull might be greater than the spirits of the gopher, the willow, and the deer. Eventually people developed the idea of one all-powerful all-knowing God. The idea of one God is probably not an original long-standing idea but a derived idea. The fact that the idea of one God is derived does not make it true or false. The fact that the idea of an airplane is derived from birds does not make it true or false, and does not make any plane fly or crash. Whether the idea of one God is true or false is another issue to be decided in other ways.

(As many pet owners know, dogs and cats respond to moving light spots. On TV, I saw a group of four penguins, in unison, as if their heads were on linked swivels, follow a moving spot of light. It is not clear if pets see the light spots as really alive, see the spots as imitation alive, simply respond to moving spots of any kind, know it is a game, know particular games have guidelines, know games have players (have others with intent), know the game is with a trusted person, guess the intent of the other player, know the game is about a thing that is life-like but not really alive, know how to pretend, or something else. I think many dogs and cats know they are playing a pretend game, about something life-like but not really alive, with a trusted friend, know the basic intent of the friend, and know there are guidelines. Because I think all this, most biologists say I give animals too much credit. It is hard to prove any alternative to the exclusion of others.)

Not only do we see the world as lively, we also see the world in terms of categories that are features of the human mind, such as “inert” (rocks), “passive” (plants), and “active” (animals). We put active things into categories such as “can move but has little mind” (caterpillar), and “can move and has a mind of its own” (cats), “material”, “not material (spiritual)”, “living”, or “more than living”. Most things, most of the time, stay in their one proper category but sometimes something straddles categories such as a flying benevolent pig spirit. Those borderline beings we tend to see as powerful, dangerous, funny, concerned, malevolent, or a combination. There is a relation between how we see the world and our social lives, especially between social lives and beings that straddle categories. A talking tree could be very important to a family that makes its living hunting in the forest or cutting wood. The subject of natural categories is a big, new, and exciting in anthropology now and will become increasingly important. Unfortunately, it is not clear-cut enough to go into here. For here, the idea of a lively world is enough. If other ideas are needed, I introduce them where they are needed.

It is important to see that I have not explained away religion. Religion could be true or false regardless of whether the capacity for it evolved. Just because something has a biological basis does not mean it is

true, false, an illusion, or a delusion. Just because some evolved capacity gives us comfort, does not mean we are under a delusion. Even if the thing is an illusion, that fact does not mean it is entirely false or wrong. Probably we are evolved not to think of particular trees so much as to think of types of trees; in fact, we are probably evolved to think at about the level of genus rather than the level of species or individual: we think of “oaks” rather than of “live oaks” or of “this particular live oak that I can see from my window”. That does not mean there are no genuses or species. Just because we evolved to think of some sticks as snakes does not mean all sticks are snakes or that there are no snakes when we see a snake. We evolved to take comfort from love and friendship but that does not mean those are delusions. Even if they are not entirely reliable, that does not mean they are bad illusions. We do not judge an idea as true, false, valid, or invalid, because the basis for it evolved. We judge on other criteria. We do not judge the validity of scientific method just because the basis for it evolved; we judge it on other criteria. We do not judge whether God exists only because we evolved the basis to believe in God but on other criteria. The same is true of morality. We do not judge the objectivity and validity of morality according to whether it evolved but according to other criteria, similar to scientific method.

Groups and Morality.

This section describes how group life “calls forth” morality. I call this path to morality the way of “self-selected groups of good guys”.

(1) Start with a bunch of people who are selfish. A bunch like this can hardly form a group. They pilfer from each other. They lie about how much they hunted or gathered, or how long they worked at the office, so they can claim to contribute more and are entitled to more. They cheat on their spouses when they can. They use violence when they want something and somebody else will not give it. Morality hardly makes sense here. We can hardly say there is any reciprocal altruism or commitment of the kind that leads to morality. I have seen groups of housemates that come close to this horrible situation, and I have seen neighborhoods in cities that come close. People leave when they can.

(2) Now imagine the exact opposite. All the people in the group are kind, considerate, helpful, generous, and trusting. Everybody shares. Everybody tells the truth. People give according to the need of others, take only according to true need, and contribute according to ability without considering the contribution of others – somewhat like Marx’s idealized communism. There is always enough to go around even if there is not enough so that everybody is rich. Oddly, this situation hardly feels moral either. People could not get to this situation without a prior feeling of morality, but, if this situation ever gets going, people are so good that they don’t have to think about being good. Nobody suffers much hardship so there is not much to be really moral about. “Love your neighbor as yourself”, “Do unto others as you would have them do unto you”, and “treat everybody equally” truly prevail. Some situations of really good roommates, and really good families, actually approach this condition. Otherwise, it does not happen.

(3) More realistically, people face occasional problems. We never have and we squabble over bones such as sexual jealousy. People feel the need for sharing and forgiveness. They are not always quick to do it, but they do come around, and eventually they do it. They forgive, help out, and get back on good terms. They learn they can trust over the long haul. This is when we feel the need for morality, when morality works, and when morality does good works. This is the situation among groups of friends that

we see on TV, among households of real people, and in some religious groups. It can even develop among neighbors and workmates.

(4) Now begin with an imperfect but overall pretty good situation. Then a bad family moves into the neighborhood. They borrow stuff without returning it, or return it damaged. In effect, they steal food or tools when they say they are only borrowing. They never loan anything out. They always ask for help with house repairs, car repairs, or lawn work but never give any help in return. They make noise, litter, and leave broken bikes all over. If you run over one of their toys, they say you broke it and make you replace it. They smoke and drink, and give cigarettes and booze to our kids. Their lawn is covered with butts. They borrow money when their house payment is due. If you don't help, they complain they will become homeless, and that a worse family will move in instead. Their sons seduce your daughters. The husband tries to seduce the neighborhood wives. Their daughters seduce the neighborhood husbands. The wife tries to seduce the neighborhood sons. The daughters blackmail the neighborhood husbands for big gifts such as cars, and they don't care if they wreck homes. Their men mug people at night, and they have beaten up men from other families who crossed them or tried to expose them. Their daughters forcibly take food, cosmetics, and boyfriends from our daughters. People are afraid of them.

Quickly, good people have nothing to do with bad neighbors. People stick hard to the proven neighbors that they can trust. We stop our wives, husbands, sons, daughters, and friends from consorting with bad neighbors both from fear they will be victimized and fear they will become like the bad neighbors. People band together to force bad neighbors out or to protect against bad neighbors. The people who band together to follow, and to enforce, reliable mutually beneficial behavior are the "self-selected group of good guys". Morality means a lot more as it comes to be not only a practical support but also a mark of who you can trust, who is really helpful, and who is "like us" or "not like us". With several bad neighbors in the neighborhood, the neighborhood would divide up into moral people "like us" versus immoral people "like them". Groups become important, and groups line up along feelings about morality.

(5) The real situation throughout most of human evolution was a combination of all these situations but more like a combination of the last two. People recognized their own group as their own group, and were as good as they could be among their own. People recognized other groups as others. They gave other groups a chance, but, if other groups did not show their high moral quality quickly, our group treated them like bad neighbors.

Any group of generally good people is always vulnerable to bad people exploiting the group, at least at first. Bad people can come from outside. Good people on the inside can succumb to temptation. Good people on the inside can turn bad. In the movies, the good people are the peasant village invaded by bad bandits. On TV, good people who turn bad include the husband who becomes an alcoholic and abuses his family and the neighbors. They include the housewife whose husband leaves her for a young bimbo, so she takes to pills, booze, borrowing, conning, and seduction.

Because morality is vulnerable to invasion by badness from within or without, morality can only succeed (evolve) under particular conditions. Morality has to be done among a group of people who act morally to each other but do not necessarily act morally toward others. Moral people have to recognize other moral people. Reciprocal altruism prevails within a moral group but not between a moral group and bad others. Moral people feel almost like kin to each other and act almost like kin. Moral people also have to

recognize bad people. Moral people have to aim good action toward good people and they have to avoid bad people. If necessary, they have to punish bad people. They even have to punish good people who aid bad people, might aid bad people, might become bad people, or are not zealous enough in separating out and punishing bad people. For morality to succeed, sometimes it needs enforcers like John Wayne or Jimmy Stewart. Morality depends on being able to label good people and bad people, and being able to separate into distinct groups of good us versus bad them. Moral people have to feel moral indignation sometimes. All this is sad sometimes, but it is a fact.

Within a self-selected moral group, people approach the moral ideal. “Do unto others” and the other ideals make sense. But they only make sense because they are limited in scope. People do not, and cannot, extend the idea of loving your neighbor as yourself to bad neighbors. If benevolence does extend naively to bad neighbors, not only do good guys get hurt personally but their children get hurt as well. If a moral teacher such as Jesus or the Buddha tells us to extend the ideals beyond the boundaries of our moral group, either he-she thinks the other people are moral too and we can merge to become one bigger moral group, he-she thinks extending ideals can actually make the other group change to live toward the ideals, or he-she is naively insane. It would be great if other people were always really moral but just appeared not moral to us because of small superficial customs – like Catholics and Protestants. But it is not always so. It would be great if being nice to bad neighbors turned them into nice neighbors - but we know that is not always so. It is hard to turn a drug gang into nice people by being nice to them first. We can keep moral ideals in mind, especially if we know their evolutionary basis, but we have to assess how well we can apply them in particular situations. The ability to make that judgment also has an in our evolved nature.

In the previous chapter, we saw how commitment, kin selection, and reciprocal altruism support group life. They lead to groups of mutually helpful members. When commitment, kin selection, and reciprocal altruism combine with “self-selected good guys”, groups can become quite stable and the moral rules of the group can become strong and lasting. Something like this very likely happened in human evolutionary history. Social scientists are trying to understand better how it did happen and are trying to find evidence for it in the artifacts left behind by our ancestors.

The Big “Us” and “Us and Them”.

Groups of self-selected good guys need ways to think about the group, their relation to the group, their relation to the people not in the group, and their relation to other groups. This need is one of the big forces in the evolution of sentience. Here I can only mention one way, and some of the results. Just as we personify wiggly sticks, mountains, and the weather, so we personify our group and other groups. We think of the group as a big person with its own personality. We find symbols for our group and our relation to our group, much as colleges have athletic teams with mascots.

To better relate to our group, we tend to split ourselves into two inside. This sounds counterintuitive, but it works and it happens. We have an “I” that is more like our personal selves, and a “me” that is like the part of me in the group. We identify the “me” with the group. We carry on an inner dialog between the “I” and the “me” that is like the dialog between “I” and the group, and that helps us deal with the group. The “me” helps me know what the group wants and what I can expect from the group. This inner dialog adds to the feeling of having a conscience.

Almost by definition, the people in groups of self-selected good guys are good to each other. They are not always so good to other people outside their group and to other groups. The members are “we”, other people are not. We think of us as “us” and think of anybody not in our group as “them”, as “other”, and as not quite up to standard. Not only are the others not in the same group as us, they are morally different too. They are not quite right. They are not fully moral. Sometimes they do bad things, and they are especially likely to do bad things to us. Sometimes they talk and dress funny. They have strange ideas about dating, sex, family, marriage, and spirits. We need to be careful in our dealings with them. Especially we need to be careful about marrying them. Our relation with a group of them can too easily turn into lasting hostility.

These feelings of otherness and hostility are part of what Jesus and other religious leaders try to get us to overcome. These feelings are what bad leaders tap into and promote.

Some Darwinists see the great importance of group effects in morality and argue that morality could only develop when groups control individuals. This view contradicts a long strong position in Darwinism that individuals are key. I tend to side with traditional Darwinism. Other than what I just said, I do not enter into this conflict.

Moral Logic, Practicality, and Moral Evolution.

On the one hand, if morality were exactly the same as practicality, if morality were always practical, then it would not be necessary. It would be redundant. It would be like telling a lion that she should chase a gazelle or telling a mouse that he should run from the cat. If morality were always practical, we would only need to do what is practical. Since we do have morality, moral logic cannot be exactly the same as practicality.

On the other hand, if morality were not usually practical, then evolution would never have sustained it. Evolution cannot get us to do what is not in our better interests for very long. Organisms that do what is against their better interests lose the race of comparative competition with organisms that do what is in their own better interests. Only organisms that do what is in their better interests leave many offspring to make up the character of the species. We are the descendants of the ancestors that did what is in their better interests.

In some cases, morality does lead us to do what is against our better interests, such as when we do not seduce our neighbor’s spouse even when we would not get caught, or do not cheat on our own spouse even when we would not get caught. On the whole, though, most moral acts are practical. Honesty really is the best policy. The gain we get from being moral most of the time more than makes up for the loss we suffer from sometimes going against moral logic. That is why evolution sustains moral logic even though moral logic is not always practical. If this were not the case, morality could never evolve. From now on, I take it for granted that this was the case, and this is how morality did evolve. I also take for granted that usually it still is the case. Usually morality is still practical. So, (1) moral logic is not the same as practicality, but (2) moral logic and practicality very often coincide because morality evolved. These facts are so important that I recall them at the beginning of the next chapter.

Now we need a feel for what moral logic would be sustained by evolution in a group, what logic would be both practical-most-of-the-time but not-exactly-practical. Suppose we have a successful group of self-selected good guys in which commitment, kin selection, and reciprocal altruism are important and are directed at people who are reliable. We need rules to guide particular relations between members, such as rules about food, clothes, fires, and other “stuff”. What kind of rules would have to prevail? In original human life, people did not differ by status, wealth, power, and achievement as much modern Americans do (they did differ; they were not egalitarian). In those conditions, only a rule that carried with it the idea of “applies equally to everybody” would be acceptable to everybody and would prevail. Only a rule that applied equally to everybody could serve as the logical basis for morality. In the original human condition, any people that were not treated equally under a rule would simply leave. Only “applies equally to everybody” could get all self-selected good guys to stay in the group. No other rule could so clearly serve as the basis for labeling people who did not follow the rule as “bad” and excluding them. If we do not want other people to steal from us, we cannot steal from them. If we want them to share, we have to share. If we want them to tell the truth, we have to tell the truth. There is no other logical simple basis for rules that can apply to the whole group. We have to do unto others as we want them to do to us, or else we get cut out of the group of self-selected good guys. That is the logical basis for morality.

Rules that carry the feeling of “applies equally to everybody” carry a moral feeling. We can say “should” or “ought” about them. All rules that we want to apply to everybody have to carry the feeling of “applies equally to everybody”. People that feel this sentiment seek out other people like themselves, interact with others like themselves, and prevail. Despite any short-term small disadvantages, overall they do better than people who cannot feel this moral feeling. This is natural selection at work. Eventually most people in a group of self-selected good guys feel the moral feeling and sense it is tied to the idea of “applies equally to everybody”. People who cannot feel it are excluded, and do not do as well. Eventually most people come to feel the call of morality, and they sense that it depends on the logic of “applied equally to everybody”. This is how natural selection established morality among humans. The people that felt moral feelings and responded according to the logic of “applies equally” were the ancestors of us all. Morality has other aspects to its logic besides “applies equally to everybody”. The other aspects have roots in sentience and group life too but I cannot get into that in this book. The other aspects go along with “applies equally”. The next chapter goes into them.

Mixed People.

Of course, it is not that simple. The basis story is correct but there are complications we have to take into account to make sense of Jesus and other prophets. People are not perfect saints and cannot become perfect saints. We are all a mixture of good and bad. Only when we accept this can we take advice from prophets as to what to do about it.

Helping kin (inclusive fitness and kin selection), reciprocal altruism, extending kinship behavior to non-kin, extending reciprocal altruism to non-neighbors, and self-selected good guys, all are natural behaviors in that the capacity for them is in our genes. All our various emotional behaviors and moral behaviors are natural in the same sense. Sharing, kindness, honesty, loyalty, honor, helping, integrity, protecting neighbors, protecting the weak and helpless, feeding the poor, and many other good moral traits are natural in the same sense that they have a basis in our genes due to our evolutionary history. Good behavior succeeds a lot of the time. The people who live in moral groups succeed most of the time, and

so the ability for good behavior is passed on to their descendants. They were our ancestors. Most people like the idea that our goodness has a natural basis in our evolutionary history.

On the other hand, bad behavior is also naturally in our genes. Whining, stubbornness, lying, cheating, stealing, betraying our spouse, seducing people, beating up people, bullying, plundering, rape, and even murder are also natural in that they have a basis in our genes and we can learn to do them in the right circumstances. Bad behavior succeeds well, too much of the time. Nearly all groups of good people are vulnerable to bad behavior, and so bad behavior can succeed at least to the extent that it can parasitize good behavior. Wherever we have good neighbors, sooner or later some bad neighbors will show up, and they can succeed for a while. As long as good neighbors keep down the ratio of bad neighbors to a minimum, paradoxically enough, the minimum of bad neighbors actually can persist. People defend their kin even when their kin are bad. Even among good people, some bad boys and bad girls succeed. Because bad boys do succeed sometimes, many girls romanticize bad boys. The willingness of good girls to consort with bad boys means that bad boys succeed even more, in a kind of feedback. Boys also are attracted to bad girls and romanticize them, and also seek to have commitment-free sex. Real groups need enforcers. Enforcers can go bad. Sometimes bad boys now become enforcers later, another reason why girls might like them. There are many ways in which bad can persist among good. I do not show all the ways but you should be able to imagine it well enough. When bad behavior does succeed, people with the genetic capacity for that bad behavior leave descendants in the population. Their descendants are among our ancestors. Bad behavior that succeeds leaves the capacity for bad behavior in human nature. Bad behavior is also natural.

Unlike good behavior within a successful group of self-selected good guys, bad behavior cannot run rampant in any group. If a group had only murderers, then everybody (but one) would be dead eventually, and no genes would pass on. If a group had only slackers, then nobody would get any food, everybody would starve to death, and no genes would pass on.

Because good behavior ideally can persist without bad behavior, but bad behavior cannot flourish without good behavior, and humans evolved in groups that supported a lot of good behavior, people in general tend to be pretty good. We are surprisingly good compared to some of our near relatives such as chimps and baboons.

How natural selection determines the mix of good and bad is a big and fascinating topic in evolutionary theory now. I cannot go into it more here.

Everybody is a mix of traits. Everybody has natural dispositions. The actual traits that any person develops depend on his-her original natural dispositions and on his-her personal history. We are all moral mixtures. We are mixtures because of both nature and nurture. We should not expect everybody to be pretty much alike in his-her moral sensibilities and in his-her moral actions. This is a lesson of Jane Austen novels.

Society is a mixture of mixed people. Sometimes particular kinds of people prevail in particular kinds of societies, as when we hope that the honest and brave prevail in democracies and we say conniving cowards prevail in totalitarian societies. Yet even in societies that have a dominant theme, we can find all kinds of people because of varying underlying natural dispositions that show up even in conditions of strong social learning.

People see different lessons in the fact that people are mixed and societies are mixed. Some people see the handiwork of the Devil while other people see the amoral kaleidoscope of natural selection. Some people see God giving us an opportunity to exercise real morality, an opportunity we would not have if somehow everybody were fully good. If we want to believe in God but not in the Devil, then what we make of the situation depends on whether we think God foresaw the situation.

Feedback Cycles.

Good deeds call forth good deeds while bad deeds call forth bad deeds. If we really want people to be better, and we want to live in a better world, we need a sense of how to break the bad cycle to restart the good cycle. If morality did not have its own independent logic apart from its service to practicality, probably there would never be a way to break out of bad cycles once we fell into them. Because morality is logically independent of immediate practicality, we can use moral logic to take non-practical leaps and so break a cycle of bad.

Suppose we are in a good relation of reciprocal altruism with our neighbor by lending him tools while he gives us barbecued food and eventually returns our tools. One day he stops giving us barbecued food and does not return an expensive tool. We stop lending him any more tools. He starts playing loud heavy metal head banger music or loud obscene hip hop music in his back yard on weekends. We start turning on the sprinkler when it is time for he and his wife to go to work and to come back from work. We set up our kid in a rock band in the garage. We have all seen this on TV and in many movies.

Paradoxically, moral indignation, which should serve to weed out bad acts and so avoid bad situations, can actually make bad situations worse once the bad situation sets in. The most famous world example is relations between Jews and Muslims. A more familiar example in the United States is relations between Blacks and other ethnic groups. Once the bad situation sets in, people use moral indignation not primarily to point out bad behavior, including their own bad behavior, but as a tool to accuse other people and try to control other people. A reliable sign that moral indignation is being misused is that the moral fault is hardly worth the fervor of the indignation.

We have also seen how it ends. Somebody has to break through the crap. Somebody has to stop with the bad deeds and start with a great big good deed. Sometimes it takes a real need to make us see how foolish we are. Suppose I get cancer and our neighbor now wants to help by doing some of my chores. Suppose he loses his job and I start feeding him and his family barbecue. Then all the other annoyances stop too. If I get over my cancer and he finds a job, then we are even better friends than we were before.

Most people are basically good despite the potential for bad. People who are successful at living in some group likely have at least a minimum of good in them. If we can reach across unfortunate events or surface groups differences, we might be able to contact the good in them and so expand the good that is available to us all.

To successfully reach out, we have to act on the feeling of goodness without immediate concern for practicality. Rarely can practicality alone cause us to reach out. Goodness has to compel us because it is good and not because it is practical. Sometimes we need to take a chance. Morality needs its own

logic apart from practicality. We need a feeling-logic of morality apart from practicality for morality to reach its best practicality.

This is what lot of religion is all about. Jesus, and other religious leaders, taught us to do good for the sake of doing good and to avoid doing bad because it is bad. Jesus and the other leaders also realized that doing good for its own sake would break cycles of bad and would institute cycles of good, both moral good and practical good. Some of their teachings seemed specifically aimed at doing good to others, such as the parable of the Good Samaritan and the admonitions to forgive and forgive and forgive. This part of the book aims to show why their teachings really do make sense and why it makes sense of their teachings to think that God might have put us in an arena where we can use their teachings.

Chapter 5.05 Moral Variations and Moral Logic

People think of morality as one thing but it isn't. It has several distinct but related and mutually dependent components. Plato devoted his philosophical life trying to subsume all moral ideas under the category of "the Good" but failed. This chapter describes the major aspects of morality. This chapter describes the major components of morality in terms of how they might have evolved but does not build a strong case; I hope to do that elsewhere. The major components of morality are listed below. "Good" and "greater good" come as a pair but not in the same way as "should and should not", "right and wrong", or "rights and duties".

Good and Bad Greater Good Rules and Principles Should and Should Not Right and Wrong Rights and Responsibilities (Duties)

Logic of Morality.

Morality has an underlying logic. The underlying logic does not make morality one thing although it helps morality feel like one thing. The logic of morality can be expressed in several ways, listed below. The fact that the underlying logic can be expressed variously does not make the logic one thing or many things. The logic of morality is not necessarily diverse in the same way that morality is diverse. I don't go into the logic of morality here except to note as much as we need. No one aspect of the logic of morality necessarily goes along with any one aspect of morality. Exactly how the underlying logic of morality relates to the parts of morality is not definite and I don't go into it here.

If you want only one aspect of the logic of morality, use "applies equally". The other aspects of the logic are variations of "applies equally" when "applies equally" is used by sentient beings. The logic shows up clearly in the idea of moral good, which is why I describe that aspect of morality first. Empathies 1 and 2 probably can be fused but it is easier for now to separate them.

(0) This point is a precondition to the other ways of expressing moral logic. It underscores that morality and sentience evolved together. Morality and sentience are intimately linked among all evolved beings (people). Morality is about sentient-moral beings (people) being in the world. Morality is about relations between beings that can have a relationship. In particular, morality is about relations among sentient-moral beings (people to people, people to spirits, and people to God); relations of sentient-moral beings with near-sentient-moral beings (many animals); sentient-moral beings caring for non-sentient beings (all life, and special places); and sentient-moral beings taking care of nature. Relations between sentient-moral beings come first logically. They are set up by evolution. Sentient-moral beings generalize out the relations to other players such as animals. Often when "person" or "people" occur below, you can add spirits, animals, special places, nature, and extra-terrestrial sentient-moral beings.

(1) Any rule or idea applies equally to everybody including me, my kin, and my stuff.

(2) The Golden Rule: do unto other people as you would have them do unto you.

(3) Empathy 1: I am like that person, that other person is like me, and most people are alike in deep ways that are relevant to the issues at hand. "Love your neighbor as yourself". "Everybody is holy".

(4) Empathy 2: "There but for the grace of God goes me". "Walk in the other person's shoes". It is not enough to understand we are all alike; we have to know what deep similarity implies. What happened to he-she might have happened to me, and what happened to me might have happened to he-she, good and bad. We have to act on the basis of "might have been the other person".

(5) Respecting Similarity and Difference. People are similar and different. Differences can be interesting, and can matter. We should not always think of people as the same even though we have to treat them as equal often. The balance of similar and different depends on situations. The balance should be worked out in accord with the principles listed above. "Everybody is still holy".

Reminder: Morality and Practicality.

Moral logic differs from practicality but moral action coincides with practicality most of the time. Many people mistakenly think morality can't be true unless impractical; real morality has to hurt. In fact, most morality is practical, as in the old adage "honesty is the best policy". Following moral logic does sometimes lead us to a practical loss, as when we do not steal or lie even if we would not get caught. Still, on the whole, acting in accord with moral logic leads to overall gain. In the original condition in which humans evolved, usually lying and stealing hurt us. If following the logic of morality did not lead to overall gain, morality could not be sustained by evolution, morality could not have evolved. I always assume that acting in accord with moral logic leads to an overall gain, so morality could have evolved, and morality did evolve in that way. I do not specify in detail how morality evolved that way and I do not argue the issue.

Optional Technical Note: Wrong Essentialist Thinking.

Here I do something I don't like because the need for brevity forces me. I write as if conditions "call forth" morality, as if morality is the obvious best fit to meet human needs in a set of conditions. I write as if morality had a single "all about" and I could specify that "all about" exactly. This kind of explanation is called "essentialist", and it is normal, but, in most cases of evolution, it is misleading. When thinking about the evolution of morality, essentialism usually reinforces the wrong idea that morality is one thing. Correct arguments take a lot of space. By being careful, I avoid saying anything wrong or too misleading.

Sense of Taste.

We think of morality as like the sense of sight in which there is one unified view, all the parts fit exactly together, and there is no overlap unless one thing is in front of another. Thinking of morality as like sight probably led philosophers astray. Morality is more like the sense of taste. The sense of taste has five major flavor components: salt, sour, sweet, bitter, and "umami" (the flavor of amino acid, like the taste of miso soup). Despite overlap and fuzziness in tastes of various foods, from these five distinct flavors, we can distinguish and/or put together thousands of different tastes. We can tell the taste of one fish, trout, from the taste of a closely related fish, salmon. We can tell apart two similar fruits, oranges and tangerines. We can tell when two different fruits are still both fruits. We can tell when two different

foods sometimes taste alike, as with mushrooms and tofu. Probably we can do this only because the sense of smell is not like the sense of sight. Likewise, with a few moral components, we can apply moral judgment to thousands of different situations. We recognize there is overlap and fuzziness but we can proceed anyhow.

Original Human Condition.

For this chapter, except where noted otherwise, assume a group of people in the original human condition of hunting and gathering. These were not stupid “cave people”. These people were just as smart as you and I (many had larger brains on average than modern humans). They were more like the idealized stereotype of Native Americans (American “Indians”) where they lived by hunting and gathering alone, especially on the plains and deserts of the United States West or Northwest coast of the US. They were sophisticated, with fully modern language and art.

Good and Bad.

Assume a group of people with small differences in status, wealth, power, strength, vigor, kinship ties, fertility, knowledge, and special skills such as musical ability, but differences don’t matter much. Differences in gender and age don’t matter much. This is a group of self-selected good guys. Practical good is what aids reproductive success: health, food, mates, good weather, relief from stress, friends, etc. “Bad” is the opposite of “good”.

All languages that I could find out about have two related but distinct ideas of “good”: practical good and moral good. When we say, “it is good to read to your sick brother Mike”, we mean both kinds of good. It is typical of human talk that we usually don’t distinguish between the two. Languages have ways to make the two distinct when necessary. Compare “Mike feels good now” with “you are a good son to read to your sick brother Mike”.

Moral good is likely based on practical good and evolved from it. Moral bad is the opposite of moral good.

Moral good is what we do to aid the practical good of others, and also is in accord with the basic logic of “applies equally to everybody”, the Golden Rule, and “put yourself in their shoes”. Not only is it practically good to share with others when we have and they have not, it is also morally good. Once moral good is established, moral good is also what we do to aid the moral good of others based on the ideas of “applies equally” etc. It is morally good to teach children not to lie or steal (to be honest) even when they are not doing anything bad right now. Moral good is what we do for others, and we would want them to do it for us as well.

Moral good comes from seeing other people as similar to us and seeing us as similar to other people. Moral good does not require seeing others as exactly like us, but it is easier to make the jump from practical good to moral good if we feel other people are similar to us and are one of us. So moral good arises from seeing everybody pretty much like us, seeing everybody as pretty much like everybody else, and seeing us as pretty much like everybody else. This happens first in a self-selected group of good guys. We do not see everybody as one totally homogenous person without differences but see

everybody as benefitting in the same ways, benefitting from aid in the same ways, benefitting from relations in the same ways, being able to give to us even if not equally, or having the sincere intent to treat us as we treat them. Moral good is doing unto others as we would like to have done to ourselves.

Because this is a self-selected group of good guys with no differences that really matter, moral good applies equally to everybody.

Examples help clarify. We treat old people well now when we are young because one day we will be old someday and want to be treated well then. Treating old people well now is good practice for people our age so we will be ready when the time comes. We really will be like the other fellow eventually. Besides, old people are not useless even when they are really old. They know and understand, not only about the physical world but about the social world as well. We treat all children well because we want other people to treat our children well. Remember we are not limited to our own thin bag of skin but are also present in our kin. We share with people who had a bad day hunting and gathering because we know that someday they will share with us when we have a bad day. It is both good and practical to share. The fact that it is both good and practical is not against morality but is a key point about morality. We help people who have been hurt or even crippled for the same reasons we help old people. We might get hurt someday too, and we don't want to be abandoned in a ditch. Even hurt, we would have value. We want people to develop the logic of consideration so they don't overlook our value in case something happens to us. We do not steal, even when we could get away with it, because stealing goes against the spirit of what we feel and threatens to undermine all the practical benefit of morality and of living in a self-selected group of good guys. It is hard keeping track of lies and thefts. It is easier to be honest most of the time: "honesty is the best policy".

Seeing in terms of "applies equally to everybody" and the Golden Rule can cause us small losses but overall it is beneficial, and it is a mental posture and mental habit too. Once we know it is beneficial, we are bound to follow its internal logic.

Greater Good.

Now assume there are some differences that matter a bit, such as in natural ability, learned skills, experiences, or familiarity with a particular place to hunt or gather. The "welfare" of a person is the reproductive success of that person. An increase in the greater good leads to an increase in the overall sum of welfares (reproductive successes) of the group. An increase in the greater good leads to an increase in the total sum of the welfares of all the individuals in the group. The greater good might not lead to an equal increase for everybody. The greater good might even lead to some people losing a little in welfare while others increase. The total increase should still be more than the total decline. For example, the group might decide to follow and hunt a herd of cattle so as to have a steady supply of meat. Following the herd means giving up some of the best local places to gather vegetables and fruits for now, such as near the creek where pecans, blackberries, and leeks grow. People that are adept at gathering, but not adept at hunting cattle, might complain because they do not expect to do as well. Still, overall the group will do better, and so the group goes. People who would prefer to gather near the creek still go with the group as a whole because the group offers them security and because they hope they can get enough extra meat to help compensate for the lost vegetable food. They do not want to break up the group of self-selected good guys from which they benefit so much.

Sometimes we cannot increase the greater good but we can preserve it. In that case, the greater good is whatever preserves the total sum of welfares (reproductive successes) of all the individuals in the group. Sometimes we cannot even preserve the total welfare but can only minimize the reduction, or minimize the damage. Then, the greater good is what leads to the least reduction in the total sum of welfares of all the individuals in the group. In the second Mad Max movie, the “tribe” had to move to preserve their greater good. The moving tribe encountered marauders. Then, they had to sacrifice some members, almost including Max, so as to minimize the damage and keep as much as they could for as many as they could. We get both these themes in wartime.

When an idea about the greater good really does lead to the greater good without hurting any subgroup too much, then the greater good carries with it not only a feeling of practical good but of moral good too. The greater good is not only practically good but morally good. We feel morally good about successful ideas that make most people better off. This is an extension of the logic behind moral good.

The idea of the greater good is easy to understand but hard to carry out, and is open to abuse. The bad scenarios should be familiar to anybody who has suffered through office politics or church politics. How can anybody be sure that there will be more meat, and enough more meat to compensate for the lost gathered cabbages and mushrooms? Even if there is enough more meat on the whole, people can't be sure that there will be enough more for everybody to compensate. Even if there might have been enough more for nearly all people, if some people actually get less total food than before, even though the group as a whole, gets more, then the people who get less will not go along.

Sometimes an unscrupulous subgroup will suggest a plan for the greater good because they know it will favor them regardless of the real effect on the greater good. Suppose the Cheval family wants to follow the herd and hunt cattle because they are good at it, and don't really care about other families? An unscrupulous subgroup can suggest a plan that favors them comparatively because it hurts their rivals, like the families in the “Godfather” movies who wanted to sell heroin not only because they knew they could make money but also because they knew the Corleone family would not go along at first. What if the Cheval family wants to follow-and-hunt the herd because they are rivals with the Grangers, who are good at gathering vegetable foods in valleys, and adept at hunting small game, but are not adept at following herds? A switch to hunting herds would give the Cheval family the upper hand. In this case, the Granger family will complain about fairness. Then somebody has to figure out what really is better for the group as a whole.

Suppose the greater good really increases but some subgroup suffers so much that it really does seem unfair? Suppose following the herds really does increase total welfare but the Granger family will be all but wiped out? Even if the Granger family does not split the group, even if a mutually beneficial balance of strategies somehow persists, this still seems unfair. We would not want to be the Grangers even with an increase in the greater good. If we would not want to be them, then we go against the logic of moral good, and so something is wrong.

If we could know absolutely for sure when the sum of successes increased, who it hurt and how much, and who it helped and how much, then we would not have to worry about somebody pushing the greater

good too far (economists struggle to achieve this ideal of complete knowledge or to find ways around problems with it). In real life, we can't be sure, and people do push the idea too far.

Good and Greater Good Together.

Clashes between the good and greater good show they cannot be exactly the same. By itself, neither the greater good nor the good would sustain itself in human life. Only together, and yet only because they are different, can the greater good and the good remain a part of human life. They are distinct but sometimes supportive. By itself, neither the idea of the good or of the greater good could have evolved. Together they could evolve. To have evolved, they had to be similar but slightly different, and similar-but-different enough to be mutually sustainable.

It hurts when aspects of morality clash, especially when different groups use an aspect for their side, and each group carries both a grain of truth and untruth. Philosophers have sought one morality so as to avoid such conflicts. I think the conflicts are inevitable, if usually manageable. The clash cannot always be resolved in any simple logical way. In the long run, these conflicts help us sustain both the good and greater good.

Start with some modern conflicts to bring home the point: Americans say it is morally good to love your neighbor as yourself, and to help your neighbor as you would your own family. Yet when helping leads neighbors to become dependent on help, to abuse help, and to distort the help system, we say that the good is the enemy of the greater good. The abuse is not confined to individuals and families abusing the usual welfare system. Business firms abuse the system of corporate welfare. Then, helping out a firm hurts the greater good. All enabling is bad. Leaders say "Don't let the best be the enemy of the good", by which they mean don't let moral ideals get in the way of the practical greater good. After the terrorist attack of 9/11, the American government captured people that we thought were terrorists, and some were. We detained them illegally, and we tortured them for information. Some information helped stop future attacks. It was for the greater good. Yet Americans condemn illegal imprisonment and torture as evil. Accepting imprisonment and torture even in this case undermines all sense of morality. We might be able to find an acceptable compromise for a while but there is no logical way to fully settle this conflict.

The idea of the good can keep the idea of the greater good from going too far. In the example above, if the Granger family were hurt too much by changing strategies to follow the herds, we could use the logic of "we are like them" to see that pursuing the greater good sometime is morally wrong. Suppose it made some sense NOT to help old people, hurt people, or other people's children. We serve the greater good by being hard-hearted. This is not so far-fetched. Conservatives today routinely counsel us not to have a heart too big. The only way to find out is to try. Stop helping. But if we try and fail, then we broke up the group, hurt a lot of people, set a bad example, and whoever remains with us is likely not to help us in our time of need. To exclude the old, hurt, and children from help without a clearly compelling reason is just morally wrong regardless of any minor impracticality. The idea of the good slows down the idea of the greater good until we can be more astute about it. When we have real doubts about the greater good, it is better not to go against the logic of "applies equally to everybody" and "that could be me". Calls for urban development too often destroyed old neighborhoods in favor of merchants who did not need help nearly as much and whose increase in prosperity did not really lead to an increase in greater good. Then, a dose of moral logic and moral good would have been better.

On the other hand, the idea of the greater good can sometimes overcome self-interest masking as the good. In a peasant village, people discover they can make a good living raising fish, but they need a few fairly big ponds linked together to do it right. Nobody wants to donate his-her land, for good reasons, even though, by getting a share of all the production, he-she would certainly gain more than lose. They appeal to the idea of the good to stop the pond. In this case, unlike as with urban development, the project really benefits everybody, even eventually the landowners who sacrifice some of their land. In the end, people will see through “not in my backyard” and build the ponds.

When both the ideas of the moral good and greater good are available, and people think about them a little before acting, both can be a part of successful social life. When we use only one idea, we fail, the idea fails, and the idea disappears from successful social life.

Should.

It seems people would go along with good, right, greater good, or practical, or with most rules, especially with rules they themselves helped to make, but this is not always so. Why it is not so is not important here, only that we see it is not so, and see the need to do something about it.

The most obvious cases in which people don't do what they ought to do are compulsions and addictions, such as gambling, sex, alcohol and other drugs, and a bad temper. Even when we see we are destroying ourselves and loved ones, we keep on. Less disgusting but sometimes just as damaging are not eating right, not exercising, not seeing the doctor, being too concerned with appearance, being too concerned with sports or other entertainment, etc. Strangely, people do not go along with rules and practicality even when the path is clear and the penalty for straying obvious. People do not balance their accounts (balance their checkbooks) or pay their taxes. People buy things when they know they don't have the money to pay just because the credit card successfully makes it through the swipe machine.

We need a boost sometimes. “Should” is where we get the boost. “Should” provides the power behind what we ought to do, so as to make us do it most of the time. Other people can appeal to “should” to get us to do something if practical appeals are not enough. “Should” does not always work but it works enough so that susceptibility to it has become part of human nature.

“Should” can be used with any of the other moral aspects. We should do moral good, should seek the greater good, should follow rules, should do our duty, and should respect rights.

The facts that “should” puts the power into morality, and that “should” can be used with any aspect of morality, lends mistaken credence to the idea that morality is one simple thing. It might have led to misunderstanding among philosophers and biologists.

Rules.

The deep guiding logic of morality is “do unto others”, “applies equally to everybody”, and “I am like him-her”. This is too abstract for most daily life. From here, we have to go through logical steps to get to “do not steal”. Along with these deep principles, we also need some clear rules for more concrete situations. On the other hand, we can't have a rule for each particular situation with all the quibbles too.

We can't have this rule even if it is true in practice: "Do not steal on Sundays, and not from anybody helpless, weak, holy, important, or powerful. You can steal from your brother when you are pissed off at him". We need moderate rules, such as simply "do not steal".

So far, most people in the original human group have been similar enough. Here I change that condition. Now people do differ in abilities, achievements, wealth, power, and connections although not as much as in modern life.

We need rules because people differ. If everybody were similar, it would be easy to feel the life of other people and easy to see the validity of "do unto others". It is harder to understand the life of somebody more talented than us or in greater poverty than us, and hard to extend ourselves so we can "do unto others". We need more specific guidelines. With a rule like "do not steal" we know that it extends even to people not like us. It extends to cover situations in which we might be tempted to behavior that is not in accord with "applies equally to everybody" as when we a poor person steals from a rich person or a rich person steals from a poor person.

We need rules because good and greater good do not always coincide. We need formal guidelines for when to go with one or the other. We need a rule like "help old people even when they do not know who you are and even when their kin group is small". We need a rule like, "help all children when they are too young to know better, even the children of your enemies". We need a rule like "don't rape even the women of neighboring bands".

Rules and "should" go together. A rule is something we should follow. A rule implies an end toward which we (should) go, a way along which we (should) follow, or a pattern that we (should) extend. When we should do, we should do something. A rule tells us what it is that we should do. It is hard to "should do" a principle like the Golden Rule but it is possible to "should do" a mid-level rule like "you should give a week's pay per year to charity".

Right and Wrong.

Recall that competition is comparative and recall the balance of mutually beneficial strategies in a group of self-selected good guys. We do not want to destroy the balance. Anything that strongly spurs the sense of comparative competition might upset the balance. We have to have some competition but not too much. Also, our group of good guys likely has neighbor "others" that are not-so-good. Our group might not be so good to other neighboring groups either. We are always afraid of bad people arising within our group, especially if comparative competition gets nasty. We need to be able to focus the goodness of our group and guard against any non-goodness by others.

Now change conditions again but keep the idea of a self-selected group of good guys with a mutually beneficial balance of strategies. Now everybody is not alike, not even within our group. Differences are still not as large as in modern society but differences are not likely to disappear in short order, so that we are not likely to become like other people who are not like us already. We cannot easily see what it would be like to be someone else who is not already quite a bit like us. When we help someone who is not like us, we are not helping a reflection of ourselves at some other time and we are not indirectly helping ourselves. The rich are not likely to get poor right away. A boy is not likely to turn into a girl in this life.

Although the group is still “self-selected”, it is less free in reality than ideally. It is hard to leave because the alternatives are not great. The fact that it is hard to leave allows some subgroups to dominate others, such as some families dominating others. Subgroup dominance is a part of the lives of the primates (apes and monkeys) from which we evolved, so it has been a part of human life too from the beginning but it was not important in this story until now.

Under these conditions, “applies equally to everybody” and “the greater good” are not so clear. In terms familiar to modern Americans, are all rich people really “job creators” and is it really for the greater good if we absolve them of taxes? If a rich family gives to a poor person, poor people will be knocking on the door for weeks. Any rule that upsets the mutually beneficial balance of strategies is likely to undo the group, shrink the greater good, and lead to a morally bad practical fall for a lot of people. Yet to preserve the greater good too much opens the door to the same abuses as with the greater good. In hunter-gatherer terms, you should share a large kill or large berry patch with your neighbors regardless of family differences.

We need ideas or rules that meet the following requirements:

-The rule should apply equally to everybody within any subgroup that is made up of similar people, such as a family, specialized gazelle hunters, or gardeners. In other words, the rule should follow the ideal of “applies equally to everybody” and the Golden Rule at least within relevant subgroups. This ideal can serve as the standard by which other ideas can be judged even if it cannot apply in all cases.

-The rule should ideally apply equally to the whole group regardless of differences. This is an idealized extension of the rule above following the basic logic of morality (“applies equally to everybody”). This is what would have been the case if there were no lasting differences between people. This requirement cannot be met in practice. Still, it is good to hold as an ideal even if it can't be met in practice.

-The rule does not upset the mutually beneficial balance. The rule both preserves differences between kinds of people and the relations between different kinds of people, enough so that the mutually beneficial balance is not upset.

-If a rule might lead to a shift in mutually beneficial balanced strategies, the shift should be clear, it should be toward the greater good, and/or it should serve a deep moral principle such as “applies equally to everybody”.

-A rule should not serve one subgroup at the expense of others or serve as the tool of one subgroup in its relation with other subgroups.

-A rule should be in accord as much as possible with reciprocal altruism (in all variations) and inclusive fitness.

-In the original human situation, even with help from kin and friends, people largely determined their own fate, and reward was roughly proportional to effort and ability. That is what it means to say that natural selection is an automatic process. No rule should change the basic relation between reward, ability, and effort. Rules can soften the effect, at least briefly.

-In a situation where people are not all the same, the equivalent of “applies equally to everybody” and the Golden Rule is “there but for the grace of God go I”. That is what empathy means in a social situation where people differ. Ideals and rules have to reflect this feeling. The best way to reflect this feeling is to apply the Golden Rule and “applies equally to everybody” outside your closest reference subgroup. Although different kinds of people (hunting specialists, gathering specialists, rich, poor, fierce, artistic) might not expect to share exactly the same fate, they do share some general fate, their children might become like the neighbors, they might have been born otherwise, they can imagine what it is like to be like their neighbors, and sometimes things do change. Immigrants to the United States often rise in the socio-economic hierarchy. Hunters sometimes have to settle down to learn how to plant potatoes. In many Western movies, the old cattle barons had to learn to put up with spud farmers and new fences. Moral feelings can only evolve with sentience; one necessary component of sentience is empathetic imagination; and so moral beings have to be able to feel even for people unlike them.

Whatever idea, rule, or principle meets these ends is “right”. Whatever idea, rule, or principle subverts these ends is “wrong”. It is possible to say that whatever meets these ends is both good and right; and vice versa for bad and wrong. We can say that what is “fair” is “right”. We should expect overlap in moral ideas, especially because all share the same deep underlying logic of “applies equally” and the Golden Rule. I do not quibble or straighten out differences here. If we want a distinction, “good” refers to applying core moral principles under all conditions while “right” refers to what fits with core moral principles under particular conditions where people differ consistently.

These ends are not all compatible, any more than the good and greater good are always fully compatible, so the idea of “right” has some contradictions even within itself. If “right” had no contradictions, most social and moral problems would have been solved by now, and we would all understand perfectly the single essential meaning of “right”. Spike Lee would not have had to make a movie about doing the right thing. Still, because the various meanings of “right” share something in common, we can think about diverse situations in similar terms and we can work toward the right thing in diverse situations.

If “right” did not have several somewhat different meanings, it is unlikely that we would need an idea of right and unlikely that the idea of right would have been sustained in human evolution. This is the same relation as between “good” and “greater good”, and probably between all the moral components. That is a topic for elsewhere.

Rights and Responsibilities (Duties).

The idea of “applies equally” tells us what to do and how to make rules. It does not guarantee that, if we do to other people as we would like them to do to us, they will do to us as they would like to have done to them. It does not guarantee a return of good behavior. The idea of rights and duties does guarantee at least some back-and-forth good behavior (reciprocity), especially with the force of “should” and the threat of enforcement behind the idea. The idea of rights and duties completes the other moral ideas by making sure they stay part of a mutually-reinforcing system. It ties morality into one whole system.

American English uses one word for two ideas. “Right” can mean “fitting” as above. “Rights” can also mean “what I can expect to do and what I can expect other people to let me do”. “Responsibilities” or

“duties” are “what I should do based on what I am, who I am, or what position I hold, in relation to other people (beings or nature)”. I think Indo-European languages, such as English, generally have one word for the two ideas but I don’t know enough to say for sure. Americans understand there are two ideas, and we can always distinguish the two ideas in use when we have to. Other languages use two or more words for the distinct ideas. Thai has “thuuk” for “right”, “sit” for “rights”, and “naathi” for “responsibility”. So we can accept that there are distinct important ideas even though we use the same word.

The ideas of “right and wrong” and “rights and duties” depend on distinct roles and situations. The ideas refer back to some distinct natural types. The roles and situations are a combination of natural types with what happens in the mutually beneficial balance of strategies in a self-selected group of good guys. The idea of “rights” depends on the natural type of a person. The idea of rights depends on the presence of different natural kinds of people (persons) in a group. A person has rights in the group in relation to other people in the group, especially people that are similar but not exactly the same. A member of the Smith family has rights against members of other families. A mother has rights as a mother, and she has duties towards her children and toward other members of the family just because she is a mother. The Smith family has rights and duties against the Jones family, especially if some of their children have recently married. The link to natural types might be why some cultures get by with the same word for both “right” and “rights”.

The ideas of “right” and “rights and duties” are not limited to pure natural types. Potters and tanners are not natural types but both might have rights and duties toward each other. In the long distant past, the rights and duties might have been modeled after natural types such as “siblings” but can grow beyond the original model to be a relation in their own terms. That is partly what human imagination is for.

In some cases, a person can have rights but not duties. A small child has rights but has few or no duties. Sometimes children are happy when they first get duties because it means “I am big now”. In the large majority of cases, “rights” strongly implies “duties”. “I got a right to sing the blues. I got a right to feel low down”. “Yes, but only if you really got hurt, only if you don’t ‘cry wolf’, and only if you think your song can really make us feel better rather than worse”. Usually rights and duties are symmetrical if not exactly mirror images. A mother as a mother has duties and rights too but her duties are mostly toward her children while her rights are mostly between her and other adults. As her children grow older, they too will have duties to her, and she will have rights (expectations) from them.

In the large majority of cases, rights and duties imply one another. In the case of rights and duties, it is easy to see how we cannot have one without the other, and so why one could not have evolved without the other. If all moral ideas were like rights and duties, then the general argument about morality being made up of distinct but mutually dependent components would be easy to make. The relation between moral good and the greater good is like the relation between rights and duties but not exactly alike and not as obvious. The same is true of all the components to each other although I do not elaborate here.

The close tie between rights and duties is evident when one is stressed to the neglect of the other. Since the 1970s, Americans have strongly cultivated rights while forgetting the necessary companion idea of duty-responsibility. We have gone too far in one direction. Only with children or handicapped people can it be a one-way street. When we invoke rights, we should think also about what duties go along with our

rights. If we cannot live up to the responsibilities, we should not expect the rights. Especially as citizen in a democracy, we have duties that go along with rights. Simply being a person does give us some rights but it also gives us some responsibilities. If we invoke the idea of rights without also living up to our responsibilities, then we necessarily treat ourselves as children and should expect other people to treat us as children too.

If people in the original human setting were able to abuse rights and duties flagrantly for their own benefit to the harm of others, or were able to abuse any of the other major components of morality, then none of the components could have evolved. Of course, people do abuse almost everything a little bit but other people keep us within working limits. We can assume that all the components of morality, and morality as a whole, were a net benefit despite some minor losses sometimes. Otherwise, they could not have evolved. This is why morality and practicality usually coincide, and why it is wrong to think of them as contraries opposed to each other.

Natural Types.

The link of natural types to right and wrong, and rights and duties, raises issues for the evolution of morality. I don't think the issues invalidate the analysis I have given here but I need to mention them. Some anthropologists do not recognize natural types at all (I am not sure how many biologists recognize them). Some anthropologists say all types are given to us by our culture or society only. I am not sure but I think some anthropologists would say that even the ideas of "moral good", "greater good", "should", "rules", "right and wrong" and "rights and duties" are not natural types but are present only in some cultures. I disagree. Some natural types have firm grounding in the evolved lives of social animals, and, on top of that, some natural types have firm grounding in the evolved social life of early humans. See the Bibliography. The ideas of "male", "female", "mother", "child", "mother and child", "young", and "adult" are likely hardwired into most mammalian brains. I think the major aspects of morality were hardwired into human brains by evolution.

Of course, even if we do accept some natural types, culture and society clearly modify natural types and add types of their own that take on a status like natural types. I think it would not be possible to make up types unless we began with at least some natural types as a base. As humans accumulated technology, they developed types that had to do with specific ways of making a living and specific orders of power. The idea of "mother" is similar across most cultures and situations but not exactly the same. A mother in America is not the same as a mother in China or in Thailand. A mother is similar among most peasants but ideas about her vary according to whether the peasants raise wheat or rice. The idea of a leader is present in all cultures but the leader is not the same in India as in America. The leader is not the same in democratic Iran as in theocratic Iran. The ideas of "hunter" and "gatherer" likely were almost hardwired into the brains of early humans but the idea of "farmer" certainly was not, yet farmers around the world have traditional rights and duties. The rights and duties of farmers are both similar and different between America, France, England, Japan, China, and Thailand. It is hard to separate out what might be natural, what comes from the strategies of making a living and of power, and what comes of culture. Even so, we can still sense that the ideas of right and wrong, rights, and duties, depend on types and that some of the types have a firm grounding in our basic evolved nature.

Fairness etc.

I don't know if the aspects of morality given so far are all the core major aspects. There are other ideas in morality, such as fairness and justice. I don't know if other ideas of morality can be made up from the aspects given so far. By pushing, we can get some. "Fairness" is allotting resources, including attention, according to type and according to aspects of the current situation that might modify considerations of type. It is "only fair" to allot cookies to children almost equally but with some concern given to age and weight. It is "only fair" ideally to allot attention to children without regard to age, weight, and personality; it is not possible to do this in practice. I found that the ideas above let me work my way through many moral issues. I am not sure it is worth trying to force all of morality into one minimal set as with postulates and theorems in mathematics, especially if the situation is more like the sense of taste than of sight. Worrying about this issue kept me from writing down anything for well over a decade. Here is not the place to go into it. This concern also does not invalidate anything said here.

Mixed Moral Beings Again, Impassable Gate.

Even self-selected groups of good guys have people of mixed moral aptitudes. The fact that morality is not one thing but several makes the situation more mixed. Some people have a strong sense of "applies equally to everybody" while other people see in terms of the Golden Rule or feel empathy. Some people feel moral good and are adept at seeking it while other people are adept at the greater good or at the feeling of right. How the compound nature of morality complicates the mix in self-selected groups of good guys has not been very well investigated yet.

Evolution can bring us to see moral ideals but it cannot make us live up to them fully. Evolution leads us to understand "applies equally to everybody" and the Golden Rule but it also makes sure that we cannot fully comply. Evolution leads us to understand the idea of "do the right thing" but also makes sure that we do not always do the right thing. Evolution brings us to a great gate through which we can see another world but then makes sure we cannot walk through the gate.

Our mixed moral aptitudes complicate self-perpetuating situations, both good and bad. When people are in the middle, as we are most of the time, our mixed moral aptitudes probably help keep us in the middle. It is hard for one personality type or one idea of goodness to dominate and to swing the entire group over to thorough goodness. People are not good enough to become too good. In the same way, luckily, also usually we are not bad enough to become too bad. Normal people might do bad things from time to time but few of us want to become thoroughly bad, and most of us can be led to correct our behavior. Most of us can see where bad behavior leads and so veer off before we get too far.

It might be nearly impossible to sustain a very good situation (at least outside the affluent suburbs) but unfortunately it is possible to sustain some very bad situations. Our mixed moral aptitudes sometimes are not enough to pull us back. In fact, our mixed moral aptitudes can be turned to the "dark side" as when righteous indignation does not serve primarily to ferret out bad behavior but as a tool in attacking other people. We know that "applies equally to everybody" can serve to bring people together and so we know when violating it can humiliate and subjugate people, as when one ethnic group finds ways to apply laws unequally so as to disgrace and dominate another ethnic group. In a scene made famous in a Bruce Lee movie and in several later Chinese remakes, a foreign subjugating power had posted a sign at a park in a Chinese city that said, "No dogs or Chinese allowed". Adept bad people fully understand "divide and

conquer". Always I am reminded of ethnic relations in America and the fault on all sides. The desire for the greater good is one great support for fascism.

Despite a few dark episodes, all in all, people are pretty good. We are usually more than good enough for normal situations and problems. We just need sharp clear reminders every so often. Unfortunately, our evolved moral skills are probably not good enough for the most important challenges we face today and in the near future. I am not sure our innate human decency is enough for the future. I think evolved human skills are not enough to handle the complexities of modern participatory democracy on a planet where population is growing, expectations skyrocketing, resources dwindling, and nature is devastated. It is unlikely we will sink into post-apocalyptic barbarism but we probably will lose the charm and grace that is core to being human.

Chapter 5.06 Implications, Especially about Jesus

This chapter points out implications of the previous chapters, and comments on Jesus.

Altruism as Perfect Morality. Contrary to misconception, morality is not all about altruism. Sometimes altruism can serve morality. Morality is about getting along so we can all do well and live decently. We do that when we follow the logic of morality. We cannot live up to the ideals but we can see the ideals and we can try hard. Here is some good advice about trying hard that is often misunderstood and abused. If you don't read too much into it, you get the real point clearly enough.

John 3:16 – 3:17. * God loved the world so much that he gave his only Son so everyone who believes in him does not die but has eternal life. God did not send his Son into the world to judge the world but so that through his Son the world would be saved.” *

John 15:9 – 15:17. * “As God the Father loves me, so I love you. Live in my love. If you listen to me, you will live in my love as I listened to my Father and have lived in his love. I have talked to you like this so that the joy I feel might be in you and so your joy [in life] will be complete. This is my command: Love one another as I have loved you. A man cannot show any greater love than to die for his friends. You are my friends if you do what I tell you. I no longer call you servants. A servant does not know why his master does what his master does. I call you friends because I have told you everything I heard from my Father [and now you know why]. You did not choose me; I chose you. I charged you to go out into the world and to bear fruit, fruit that will endure. When you carry out your charge, God will give you all that you ask in my name. This is my [final and highest] command to you: Love one another.” *

Jesus did not say most of this but it does show his intentions and his all-about: Jesus has told us what to do. We now know as much as he does. He took us to the gate and showed us what lies beyond. Now we know to love our neighbors. That is the same as doing to them what we want them to do for us, and “applies equally to everybody”.

Jesus probably did prefer as friends people that followed his teachings about the Kingdom of God and who were otherwise interesting. Jesus did not take as friends only people that did his commands. The early Church invented this restriction so as to divide people into in-group and out-group and thus to maintain in-group cohesion. By 100 CE, when this passage was written down, the early Church was already deciding what Jesus' commands were.

Moral and Natural.

Much of what Jesus advised is moral but not necessarily natural, such as that his mission is more important than family. Too often, especially in the modern world with romanticized ideas of nature, people use the ideas of natural and moral more as tools to influence other people than because they have thought through the issues. To get clear about Jesus' use of morality we first have to get past the misuse of natural and moral.

People like to think that natural and moral coincide completely. When both ideas can be used to judge behavior, people feel the judgment strongly and are likely to go along. If we can label a behavior both natural and moral, then we feel people really should do it. Taking good care of your kids is natural and moral, and you better do it. If we can label a behavior both unnatural and immoral, then we had better not do it. Child molesters die in jail. Intermediate cases are annoying and we would like to exclude them. When an unemployed single mother steals to feed her children, or when an experienced sixteen year old girl seduces an inexperienced twenty year old man, we get edgy. People want to use both ideas together so as to better influence other people.

Although natural and moral coincide much of the time, they do not coincide all the time. If evolution has cases of natural evil, nature and morality cannot coincide all the time. If evolution leads us to see moral ideals but makes sure we cannot live up to ideals, then nature and morality cannot coincide all the time. People on all sides of issues and all hues in the political spectrum like to invoke nature to bolster their positions. People use nature to attack the moral positions of their rivals. The easiest way to get clearer is to see a few confused ideas.

People think nature is always benign but that is not true. Apple seeds contain cyanide. Cancer is natural, although it can be induced by manufactured chemicals. Long-term exposure to sunlight also can cause cancer. Crocodiles and snakes are natural but they can kill you. Poison oak and poison ivy are natural. Fire ants are natural but horrible. Some natural chemicals are poisonous. Chocolate kills dogs. Because herbal tea is natural does not mean it is all good or can't harm you. No tea cures cancer. Caffeine from tea can make you just as jittery as the caffeine in "energy" drinks. Yerba matte tea contains a high dose of a chemical that acts like amphetamines.

Just as not all natural things are good, not all made things are bad. Recorded music is good except when it is abused by people by being blasted out of cars. I love brownies from a mix. Modern people cannot live without smart phones now.

Some people mistakenly think all diseases come from unnatural conditions, and that nature can provide a cure for all unnatural diseases. If we didn't live badly, we would never get sick. If we do get sick, we can always find something in nature's vast benevolent storehouse to cure us. Few people who think like this have in mind that our natural way of life was hunting-gathering. Usually they have in mind a gardening way of life without realizing gardening is unnatural (not practiced by original humans) and agriculture led people to malnutrition, famine, stunted growth, disease, and organized war. People who live absolutely natural pure lives still get cancer and still catch the flu. There is no natural cure for allergies, leukemia, cervical cancer, or prostate cancer. There is no natural cure for depression other than some chemicals we get in what we eat. Postpartum depression can be all natural, and sometimes it is best treated with made chemicals. Whether we get any of the diseases just mentioned seems to depend as much on our natural genes as on what we ate, drank, breathed, wore, or did. Exercise and a balanced diet are more effective at prevention than any "natural" quick fixes.

We label behavior that we promote as natural and moral even though it might not be fully either, such as large-scale interventionist national defense. We label behavior that we dislike as unnatural and immoral even though it might not merit full condemnation, such as drug use or welfare aid to poor people. The biggest problem with natural versus moral comes with behavior that is at issue in the American "culture

wars". People invoke natural and moral together to gain the strongest possible support for their position in the culture wars. People on one side say homosexuality is unnatural and thus immoral while people on the other side say homosexuality is natural and thus moral.

In truth, sometimes we think acts are natural but also think they are immoral and we don't want people do them. We don't want people to steal, especially from us. Sometimes we think acts are moral but not natural and we want people to do them anyway. We want people to help strangers in the city, especially lost children. Natural and moral are not the same. Sometimes we have to choose. It is likely natural for healthy young women to begin having children when they are about 16 years old but it is not responsible to have children until you can fully support them, for sure, all their lives, by yourself, in the real capitalist world, and so it can be immoral to do what is natural. Prostitution, drug use, and gambling are a bit immoral, but mild indulgence is probably natural, and it is more immoral to try to suppress them, so, in this case, natural wins.

We should guard against people who say that natural and moral are the same, and so we don't have to think but only have to do what they advise. This is how both Right Wing and PC warriors approach the question of gay marriage, abortion, drugs, family life, and relations of church and state.

If you want to use nature to assess morality, or morality to assess nature, then you should know enough about both nature and morality. If you know something about nature, maybe it can help you assess what is moral, but, at bottom, you have to decide about morality on the basis of moral logic. You have to give reasons. Then you have to decide what is better, natural or moral. When making the assessment, it helps to recall what other people have done and what the great teachers have said.

Evolution Aims at Sentience, Morality, and Goodness.

Wherever sentience evolves, morality also will evolve, and vice versa. In the future, it will be possible to make artificial sentient organisms, or write computer programs, without morality, or with a different morality than humans have; but it is not possible under natural selection. Both sentience and morality can evolve only in a group made of persons that see themselves as persons and that see other group members as persons and as group members. When the conditions are ripe for one to evolve, the other will evolve as well. I believe morality and sentience are mutually dependent, like the aspects within morality, and so can only evolve together, but I did not make that point in this book.

Because morality evolves, evolves under similar conditions whenever it evolves, and evolves in similar ways, morality will be similar among all evolved sentient-moral beings. All evolved morality will have "applies equally", the Golden Rule, empathy, and respecting similarity and difference. All evolved morality will have moral good, the greater good, rules, should, right and wrong, and rights and duties. The balances need not be all the same for all evolved moralities. If bears evolve morality, they might feel a greater sense of moral good or a greater sense of the Golden Rule than we do. If cats evolve morality, they might have a lesser sense of rules than we do; but they will still have a sense of rules. Science fiction makes a point of the fact that other beings evolve a morality similar to ours but not exactly like ours. Klingon morality is different than Terran morality but also similar enough so we can see each other's moral stances and deal with them. If dolphins and whales have evolved a morality, it will be quite a bit like ours but not exactly like ours. All evolved moral groups will have mixed moral personalities. All evolved moral groups will have the ability to rationalize exploiting other moral groups, just as humans did

among themselves. Let us hope we all go further toward the logic of “applies equally” and the Golden Rule before we all meet.

Evolution “aims” toward the development of sentience and morality, at least in a few species on a planet with the right conditions. Because all evolved sentient-moral beings understand good, seek good, and avoid badness, and all evolved sentient-moral beings are likely to be good more often than bad, we can also say evolution “aims” toward goodness while avoiding badness.

We can say evolution “aims” at sentience, morality, and goodness together; but we should not make too much of this situation. Use it to spark your imagination but don’t make anything too metaphysical out of it. Evolution also seems to aim at predators and parasites, and we don’t want to raise them to demigods. Evolution aims at sentience, morality, and goodness in the same sense that it aims at complexity, five senses, locomotion, sexuality, a central nervous system, mouths, arms and legs, trophic levels, ecological communities, and warm blood (thermoregulation). Evolution aims at any trait in the same way an avalanche aims downhill or a planet aims to orbit around a star. Under the right conditions, that particular trait has a high chance of developing. That is all. Evolution does not aim at any trait in the sense that everything else is a preparation for the trait, the trait is the highest trait, it is the culmination of evolution, it is the culmination of any logical progression, or the trait is inevitable. Sentience and morality were not inevitable on Earth. Even goodness was not inevitable on Earth. Parasitism was more inevitable, and do we really want to say that tape worms are the ultimate form of life toward which God aimed? Maybe sentience, morality, and goodness are only preparations for another coming trait that will be even higher, such as telepathy, the ability to shape reality directly with our minds, or escape from our bodies. Once we understand the danger in saying that evolution aimed at sentience, morality, or goodness, then we can think about how inevitable we see them, how high they are, and how much we can see them as the culmination of evolution and of God’s plan. We can use our imagination without mistaking our desire to raise ourselves to divinity as some kind of logical certainty.

Selective Attachment.

Morality has been perverted to serve immoral ends. To pervert morality, a bad person convinces people to feel moral about acts that most people, under normal circumstances, would consider immoral, such as killing a child. If morality can be perverted easily, then it is hard to argue a link between God and morality. It is hard to argue that God gave us morality through evolution. Instead, morality is just another evolved feeling, like pleasure, that can be attached to acts so as to get organisms to do what needs to be done when other feelings might not be enough. If morality can be attached easily to any act, that fact seems to block any special status for morality, especially any link to God.

I can’t remember who said that, if ants had morality, then killing a rival queen would be a virtue. We can add similar cases: male lions would say killing the cubs of a previous male is a sacrament; tarantula hawks would say stinging a tarantula is holy; and the aliens in the movie “Alien” would say sticking an egg down a human gut is blessed. This is wrong. If ants could feel morality, they would have had to evolve sentience along with morality. Ants are not sentient, so they cannot have morality as humans do. They can have no moral feelings about killing a queen or any organism. If ants did evolve sentience and morality together, then they would understand why killing a queen might not be moral. They might find a

rationalization to do it anyway, but they would understand the moral dilemma. The same is true of lions, tarantula hawks, and aliens.

I accept that morality can be perverted but I don't think this means moral feelings can be attached to just any act, morality has no special status, or there is no link between morality and God. Almost any ability can be perverted. That does not necessarily discredit the ability. It depends on how often and how badly the ability can be perverted. It depends on whether the perversion completely discredits the underlying logic of the ability. In modern America, eating has been perverted. How morality is perverted actually shows its underlying logic, and that, in turn, bolsters the special status of morality, and the idea that God gave us morality through evolution.

Moral feelings cannot easily be attached to any acts such as murder, and they are not usually attached to mundane acts such as a quick lunch at the local counter. Most of the time, moral feelings attach to actions and rules that we want to apply to everybody equally, and that we can do for them as we want them to do for us. When bad people pervert morality, they convince other people that an act is really for the greater good even when the act does not seem good, that an act is something other people would want us to do generally but we just don't know it, or that an act is really an extension of a rule we already accept. People use one aspect of moral logic to pervert other aspects. They cannot attach moral feeling wherever they want or however they want but only in accord with underlying moral logic. When a child, or a political interest group, says "but that's not fair" purely to advance self-interest, still they have to appeal to an underlying idea of fairness. In appealing to the underlying idea of fairness, they actually bolster the idea of fairness, and prepare us for other better uses. The underlying idea of fairness exists apart from particular bad uses of it, and supports other good uses. It is up to better people and better thinkers to expose how bad people misuse moral logic, and to put us on a better track. It is up to better thinkers to use moral logic correctly. Practicality gives rise to morality but does not engulf morality. Morality can only be perverted because it has a deep underlying logic. The fact that morality has an underlying logic does allow it to be perverted some of the time but also keeps it from being perverted the vast majority of the time. The logical drift of morality shows through despite the fact that morality evolved, usually goes along with practicality, and can be perverted. Jesus understood the logical drift of morality, and pushed in the direction of morality's logical drift.

The argument that morality evolved, so moral feelings can be attached to any act, and, therefore morality has no special status, not only undermines any link between morality and God, it also undermines any special status for morality. This argument also undermines moral atheism. If moral atheists want to keep any special status for morality, they have to counter this argument. To counter this argument, they have to resort to the underlying logic of morality. In resorting to the underlying logic of morality, they show the slight gap between morality and practicality. If they want to keep this argument, then they have to explain how moral feelings can attach to any act but morality is still special. I don't think they can do that. I think any attempt to keep morality special leads back to the idea that God gave it to us, and all sentient beings, through evolution.

Evil Does Not Begat Good.

Evolution is messy, ugly, amoral, and sometimes immoral. Sometimes it works through mechanisms that middle class people officially dislike, such as self-interest, nepotism, favoritism, coalitions, conniving,

betrayal, strong people dominating other people, and the weak going along with the strong. Paradoxically, without amorality, sentient-moral beings would never have evolved. Because morality evolved in self-selected groups of good guys, most of us are mostly good. Even so, even among good guys, all of us have some bad in us. We are all mixed. If we did not have to watch out for bad tendencies and bad people trying to invade the good guys, our goodness would not be so strong.

A group of good guys almost invites badness, like a pond of sitting ducks. Bad and evil often are more fun than goodness. These points together raise two questions, to both of which the answer is “no”. (1) Are good and evil locked together in some kind of symbiosis, so that we cannot have one without the other? Don’t we need evil to create good? In some way, isn’t evil the same as good, or just as good as good? Aren’t Jesus and the Devil the same? (2) So, isn’t it alright to do evil, or at least to do just exactly what I want? By doing evil, or doing what I want, aren’t I really helping good? By being an agent of selfishness and evil, aren’t I really being an agent of good? This position is a re-assertion of bad ideas from ancient dualism. Variations on this position are used to excuse bad abuses of capitalism; and, amazingly, people accept the excuses.

Evolution gives no excuse for badness, including evil. Amorality is not the same as immorality. Self-interest is not the same as selfishness. Self-interest has served the evolution of morality but selfishness rarely has. Evolution punishes selfishness as much as it punishes too much goodness. You do not serve morality by being persistently selfish. Evil is like unrelenting selfishness. Evolution usually discards evil just as it discards unrelenting selfishness. Without implying anything too metaphysical, it is fair to say: when evolution makes sentient-moral beings, then evolution consistently produces goodness; it endures badness, including evil; evolution only sometimes makes badness as a by-product; and it does not aim at badness. Good and evil are not locked in metaphysical twin-hood. Whether you serve morality by being appropriately self-interested depends on the institutions in which you live. If you want to serve goodness indirectly rather than just do good yourself, then you can work to create the right institutions. Serve democracy. Strive for enlightened well-regulated free enterprise. Strive for enlightened environmental regulation. You can serve goodness by being bad in some cases only because other people are good. Yes, it is possible to be too good in this world. But normal people so rarely make this mistake that you don’t have to worry about it. You need not seek to right the balance of too much goodness over badness by being bad yourself. Seek to find the right balance between good and self-interest. Don’t raise evil or selfishness to metaphysical principles just for excuses. Evil and selfishness are what they are on their face. So is goodness. This situation might be why God did not want Adam and Eve to learn about Good and Evil while in Eden; just do well naturally and don’t cogitate too much; Taoists and Buddhists would approve of just doing good without too much navel-gazing.

Right Response.

We live in a world where we feel morality but we cannot live up to the ideal, and, in the meantime, people suffer. What is the right overall response? The major world religions and philosophers have given us the right response. Jesus gave us the best response. Our parents and grandparents gave us the right response. Novelists, playwrights, TV writers, and movie writers have given it to us. Be useful. Try hard to be honest and to help. Help people and nature. Do to other people as you would like them to do to you. At least, do not hurt them. Pay it forward, more than once. Enjoy life if you can. Strive for justice and against injustice. Be honest in your job, carrying out its full duties, showing no favoritism even to kin, but

showing mercy to the needy. Accept that you will suffer some loss if you are honest. Use your mind to figure out what is the best government. Use your mind to figure out the best use of your time and energy. Work hard for a cause if you feel the urge but be careful with zealotry. Be a good citizen. Don't be selfish. Don't be a fool. Accept your limitations and work around them as best you can. Accept human frailty and put it into contexts where it will do the least damage and the most good. Don't allow institutions to encourage bad behavior. Learn when you can count on human strength. Don't ask more than people can give. Found democracy on good institutions rather than on unrealistically ideal humans. You can add more details. These slogans do not make the problems go away. But we have to start here.

Jesus.

Jesus was not a systematic philosopher so there is no point combing through scriptures looking for quotes to support my ideas about morality, the evolution of morality, or God's role. These points stand out.

Evolution leads us to see moral ideals but cannot get us to act fully in accord with the ideals. Jesus pushes us to act better. He gives us the shove that we need in the right direction of empathy and the Golden Rule. It is not clear if his teachings will be enough to get us to act well enough to save the planet and the quality of human life. If they are not, it is hard to see what would be enough. In combination with realistic practicality and good ideas from other religious teachers, it might be the best chance we have.

Jesus' teachings are effective in getting us to act better because they go along with the deep underlying logic of evolved morality. Jesus completes evolution (don't take this phrase too seriously; see below). It would take too long to go through each of Jesus' teachings, exemplified in passages, to show how they continue the logic of evolved morality. I invite the reader to do that from the points cited in Part Four of this book, and then to go to a New Testament to look further. Maybe a few points here can carry the case. I explained evolutionary moral logic primarily through "applies equally". Many people think of the Golden Rule when they think of Jesus. The Golden Rule is fully in line with "applies equally". "Applies equally" is another way to say the Golden Rule, and vice versa. If we adopt one then we have to adopt the other. If we apply all rules equally to everybody, then we have to do what we want other people to do, and we expect them to act well toward us too. Jesus also preached universal love. If we love everybody then we love everybody about equally, including sometimes ourselves when we need it. Jesus preached the value of the self. If we value our true self more than any power or possessions, and we see other people as like us, then we value them in the same way too. His teachings build on the empathy that is an intrinsic part of evolved sentience and evolved morality. That is what it means to see other people as ourselves and act toward them as we want them to act toward us.

The morality that Jesus urged on us is not completely natural. It is not natural to love your neighbor as yourself or really to treat all people exactly as you would like them to treat you. It is not natural to give away all your possessions in the uncertain hope of attaining the Kingdom of God. It is not natural to put Jesus ahead of your family and country. It is not natural to let another person commit violence against you and your family without trying to protect you and them. It is not natural to let bad people destroy a good society in the hope that God will rebuild another similar good society later when he feels like it. Family values might be perfectly natural but it is not what Jesus was all-about. All these ideas might be an extension of ideas based in evolution but they are not an extension allowed by evolution. Yet some

of us still urge these ideas on all of us, or at least urge us to find a compromise with reality that is more in accord with the ideals than normal. We all have to decide how much we accept of the ideal and the natural, and where to draw the lines.

Jesus was a victim of the greater good, just as Harry Potter was. The Roman and Jewish authorities killed Jesus to prevent public disturbance; they killed Jesus for the greater good. Anybody who reads the Gospels with an open mind can see this is so regardless of attempts by the Gospel writers to blame Jews. Officials acted out of genuine concern for the greater good, acted within their authority, and did what many people considered for the greater good at that time and would consider for the greater good in our time. The Roman and Jesus authorities were as human as we are, and so we likely would kill Jesus for the greater good too. I have met deeply Christian church goers, police officers, soldiers, and government officials who would not understand they would kill Jesus too if he appeared today. Jesus' death is a hard lesson that people use the greater good to sustain their own ideas of order, and that people make miss the mark even when they really mean to do good. A friend told me that Mel Gibson used his own hands to drive the nails into Jesus' hands in the movie "The Passion of the Christ". Maybe our flawed tendency to squash good people in the name of the greater good is one reason why Western people are so suspicious of authority and of people that claim to know the greater good. Jesus' death is a clear lesson that we have to think hard about the moral good and general good so we can salvage both the true moral good and true general good.

Jesus taught a strenuous morality but he was not an absolutist. He appreciated the difference between the moral good and the greater good. He understood that all moral ideas can cause trouble. He did promote the Kingdom of God, and thought it was the vehicle for the greater good in his time. But the Kingdom of God ultimately was to be run by God. I doubt Jesus would have crushed anybody's real moral good or anybody's right in order to achieve the greater good even of the Kingdom of God. Jesus refused dominion over the world, and he insisted on the integrity of each individual. It is not clear from scripture how God would run the Kingdom nor what Jesus' agenda would have been if he had lived longer.

Jesus urged people to do practical and moral good regardless of any connection to the greater good or to any official structure of the greater good. Stop thinking about the Kingdom of Israel; stop waiting for the Kingdom of God. Just help people. Just love. Just treat people as you wish to be treated. Make realistic plans for this world. If you do that much practical and moral good, then the greater good will follow and most rightness will follow. With luck, the Kingdom will follow too. This is what makes Jesus seem naïve but it is also part of his appeal and power.

Usually Jesus pushed in the evolved direction of the underlying logic of morality, including most moral aspects such as good and greater good. The idea of rights and duties seems like a bit of an exception. Jesus wanted us to carry out our duties and to seek rights for all people in accord with moral logic. But he did not want us to insist on our rights, especially if we did not also do our duties, and if we did not feel the correct reasons behind our rights. He did not push rights and duties completely. He would stress duties as much as rights. He would like us to carry out our duties not just because they were duties but because we understood the rightness and goodness behind them. That is not really an exception to following moral logic toward its endpoint but it is a variation that we have to be clear about. As long as we are clear, I don't see any problem. (Some Protestants worry a lot about this point. Despite stressing faith

[underlying moral logic] more than acts [duties], some Protestants seem to have raised duties [acts] to a higher level than other moral aspects and other moral logic [faith].)

Jesus clearly understood the vicious circles that result when we return bad for bad and when we hold a grudge. Jesus understood the evil regimes that result from pursuing the greater good. Jesus understood using good as an excuse to get your way and to undermine the greater good. His teachings help us get out of terrible situations of blaming and revenge. They give people the courage to cut the cycle. They help us ratchet up the levels of practical, moral, greater good, and rightness, and to keep them there. His teachings start a new higher cycle. They help us get into a pattern where good acts sustain good acts and the greater good really increases naturally. His teachings start the ball of "pay it forward" and keep the ball going. Forgiveness is not only good-and-right in itself but creates further good and supports the greater good by erasing bad and by promoting good further along the line. Jesus' teachings will not cure all bad situations by making enough people in them good. If people had that much potential for good, then bad situations would never arise or would be cured easily. Jesus' teachings help us see the situations more clearly and help us do as much good as we can within bad situations.

When we follow Jesus' teachings enough to get us up a level, we feel better about ourselves and others. We feel more comfortable. When we feel comfortable about other people and when we do not fear falling too far backwards, we are better judges of the greater good and of all morality. We do not need as many schemes for the greater good, and we are better judges of the schemes that do come along. When we are comfortable, we can afford to make mistakes because we feel we can recover. We are receptive to plausible ideas about the greater good, as Americans were in the 1960s and 1970s. We are also better judges of what can go wrong with schemes; as Americans were in the 1990s. Jesus' teachings move the good, the greater good, and the right closer together without merging them mindlessly.

A human being cannot strive to meet the ideals of Jesus and still succeed in this world. You have to be too honest and too open to exploitation. Jesus was correct when he told the rich young man to sell all his possessions before the rich young man could follow Jesus into the Kingdom of God. Whether a person can reasonably well follow Jesus and reasonably well succeed in this world at the same time is a matter of debate. Churches and sects gain followers by telling them they can have their world cake and eat their spiritual cake too but the churches and sects are wrong.

Jesus and Evolution Again.

Now I have the makings of a metaphysical theological thriller. We have at least six distinct but related moral qualities (good, greater good, should, rules, right and wrong, and rights and duties) that cannot be reduced to any one quality but need to work together and need to be resolved, like the seemingly contradictory initial evidence in a spy movie. Evolution takes us to the gate but cannot take us through; Jesus points the way. Jesus takes us where mere biological evolution can lead us to but cannot go. Jesus embodies the culmination of evolution. Because sentience and morality have to evolve together, would have the same features wherever they evolved, and would have features much like what Jesus urged us toward, we can say that Jesus is the agent of a principle that is universal in this world. We can see Jesus as a metaphysical cosmological principle and a savior, the embodied force, for our world, of usually-spiritual goodness. He is an avatar of God, and maybe God himself. We could hail Jesus as the greatest Buddha and/or bodhisattva. I could easily devise a scenario wherein Jesus could play this role. We could have a modern pseudo-Orthodox variation on the old stories of Gnosticism and Emanation. We

could even re-introduce the twin-hood of good and evil. While tempting, and while this story would sell more books, it is better to say “no”. Jesus did not resolve all problems with morality although he made us more aware of them and he gave us the right advice so we can carry on with a better life as normal people. He gave us real advice for a real world where all advice is bound to come up short of solving all problems perfectly. What he did is a lot, and enough. It is much better not to sully his real achievement by cranking Jesus up to our imaginary self-serving heavens. If you can make a metaphysical theological thriller out of the story, then go ahead, but it would be better if nobody listened to you.

Before the rise of Darwinian ideas about evolution in the late 1800s, there were ideas about other kinds of evolution, mostly what we now would call ideas about progress: the world moved in directions, mostly higher and better, guided by the invisible hand of a hidden spirit. Every once in a while we can see the spirit behind the plan. The spirit looks like a human person. To “seal the deal”, sometimes the spirit takes on a body and lives among us. For reasons I do not fully understand, people ever since agriculture, including modern people, have felt deeply happy to believe this scenario. Even atheists have a version (great thinkers and the progress of the human spirit). I was infected too but I tried to find some residual truth despite the infection. People feel good to believe they can link up with the guiding spirit, especially the embodied form. People who want to think of Jesus as the embodied culmination of cosmic planning and directed biological evolution are not being guided by a clear idea of Jesus but really are being guided by the older odder need for an embodied spirit of world advancement. Their understanding of biological evolution will be distorted by the need for an embodied personal spirit. That distortion is more likely than that their theological stories are guided by a solid understanding of real biological evolution.

So, the cure is: just say “no” to bad religion and bad use of the imagination. Just don’t see Jesus as a cosmological theological principle. Take him as he is. If you want to speculate, that is good, that is part of human nature. Be sure to get the facts straight first and to stay well-ground in facts. Find out if any hidden ideas from the dim mists of history and human longing are secretly guiding you. Know that any silliness you spout can mislead people.

I doubt it offends Stan Lee to say the X-Men are an example of a good way to think about non-Darwinian evolution, spiritual superiority, and morality. Magneto clearly is a step forward in evolution but he is also a very bad paradigm for Jesus. Evolved talents too often lead to a sense of separation, superiority, and entitlement rather than to a sense of connection and obligation. Even if we have been abused for our talents, as was Magneto and Jesus, we should not let the abuse force us down the dark path. Too many Christians follow Magneto. Dr. Xavier is a better paradigm for Jesus because he does not believe he is entitled and he thinks mutants and normal people (“muggles”) are basically similar. But even Dr. X is not much better as a role model for us because he is obviously super too. We can actually be X-Men, and women, without needing a Magneto or even a Dr. Xavier. All people already are “mutants” because all people already share evolved moral ability. It is a matter of how they use it.

Jesus pointed beyond the limits that natural selection puts on morality toward the conclusions inherent in the logic of morality. He did it not to theorize about better people or a superior ghost world but to get real people to really build a better this-world by really being better. By pointing toward the logical conclusion of (evolved) moral capacities, he expects us to behave more in accord with ideal morality than usual. He expects us sometimes to get beyond the limits that nature put on moral action. He expects us really to act toward everybody else equally as if they were us, to do for them what we would like them to do for us.

That is all. He does not expect us to be supernatural like a Jedi or magician. Any more is too much temptation. He is not the culmination of evolution-as-a-cosmic-principle and he is not the super-natural principle that evolution was seeking all the time. In their ways, great scientists and great artists also go beyond normal human limits by pushing evolved capacities, and we do not extol them as the culmination of cosmic evolution and as gateways to the metaphysical beyond. See Jesus the same way as we see great scientists and artists. Seeing Jesus as a transcendent principle undercuts his main message rather than supports it.

Seeing Jesus as a principle that transcends nature and evolution is dangerous in the bad old way that Christianity has always been dangerous. If Jesus is beyond physical evolution and he is the culmination of cosmic spiritual evolution, then what are the Jews? Again the Jews become the merely physical, merely legal, merely animal, merely natural, the physical dregs that Jesus as Spirit goes beyond. Again the Jews become stooges in a propaganda play. Again they are fall guys and scapegoats. Again we have an excuse to denigrate Jews and hurt them. I do not want Jews turned into Magneto's followers, the partly-holy recidivist force of badness, with Christians turned into X-mas-Men, the fully-holy guiding force of goodness (I know Magneto was a Jewish boy in a ghetto). Jesus' ideas were Jewish ideas. Many Jews shared the ideas even if they did not express them as well as Jesus and did not put them in the context of making a better world. Many people of other religions share the same ideas even if they too did not put them in the context of making a better world and even if other religions did not bring the ideas into world history.

Some Due Credit.

As far as I know, nobody else has treated the evolution of morality as I did, with morality as a bundle of a few distinct but mutually dependent features, and with evolution showing people ideals but not allowing us to live up to them. I do not claim much originality; the idea is not hard. I only want to show that I did not steal any ideas, and to explain why I do not offer citations for this particular idea.

I think James P. Hurd is an orthodox (standard) Christian. I apologize if I am wrong. To my knowledge, James P. Hurd is the first orthodox Christian who both fully understood modern Darwinism and likely had the idea that Jesus completed biological evolution. As far as I can tell, he had this idea without infusions of odd non-orthodox ideas about evolution and progress. He and I had this idea independently, in our own versions. He had it without any prompting from me. He should get some credit for any credit due this idea. His version likely would differ from my un-orthodox version but that does not matter for purposes of giving him due credit. I only know of any of his ideas because of brief talks with him at conferences in the early 1990s. I did not learn the substance of his thought. I do not know if he holds the idea now. I do not know if any of his colleagues also had the idea. Search him on the Internet, especially for his good ethnography on American religious communities. As far as I can tell, the work cited below does not explain the idea of seeing Jesus as completing evolution. James Hurd is a sincere good person who puts his religion into practice. He kindly mailed me a copy of his book for free when I was stuck in the field. I have had ideas stolen from me, and it hurts badly. I do not think I stole this idea from him because I had it independently before I met him, and I knew of non-Darwinian and non-Christian versions too. Hearing him mention it at conferences did spark my imagination and did spur me on to do the necessary thinking out when I had the time. I want him to get all the credit that he deserves. I hope I am doing him justice here. He is not to blame for any of my errors.

Hurd, James P. (editor). 1996. Investigating the Biological Foundations of Human Morality. Continuing Symposium Series Volume 37. Lewiston, NY: The Edwin Mellen Press